The Builder.

VOL. LII. No. 2299.
SATURDAY, FEBRUARY 26, 1887.

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The History of Art in Flanders.

THE three sumptuous volumes with which Canon Dehaisnes* has enriched students of Mediæval art deserve much more attention than the English press has thus far devoted to them. The first volume consists of a *résumé* of the results arrived at by the author, and is adorned with some fifteen Dujardin plates. The other two volumes contain a series of documents or parts of documents mostly never before published. The learned editor has devoted his leisure time year after year to the search. He has hunted through one collection of archives after another, and found here the record of a payment made for a work of art, there an inventory of the possessions of an abbey or of a prince; now a builder's account for work done at some château or other palatial residence; and again, the list of valuables robbed by highwaymen from a rich traveller. As we turn the pages we catch the strangest and most varied glimpses of the past, now and then lightened into actual visibility by some keen word or well-chosen expression unexpectedly flashing forth from the gloom of account-books or legal records. The Comte de Laborde's somewhat similar work, entitled "Les Ducs de Bourgogne: Études sur les Lettres, les Arts, et l'Industrie pendant le XV^e Siècle" (Paris, 1849-54), is well known to every student. It has been M. Dehaisnes' aim to do for the earlier centuries what M. de Laborde did for the wonderfully busy and richly productive epoch which was contemporary with the reign of the Dukes of Burgundy over the provinces which now form the chief part of Belgium.

It will not be expected of us, in a notice like the present, that we should go further into the nature and extent of the documents published. Nine hundred and forty quarto pages are not to be quickly read, nor is it possible to test in a short time the accuracy of the transcriptions and printing contained in them. The ultimate test can only be applied by time and use. Our function is rather to point out to the possible reader what a work of this magnitude contains that is not to be found in existing books, so that he may be in a position to judge for himself whether it is worth his while to purchase it or not.

The first volume is divided into two parts, dealing respectively with the periods intervening between the barbarian invasions and the Crusades, and between the Crusades and the fifteenth century. An introductory chapter is followed by one dealing with social life and its relation to art in the earlier epoch. Four chapters are next devoted to the history of painting, sculpture, tapestry, goldsmith's work, and miniature between the same limits of time. The second portion of the history likewise commences with a general chapter, after which the reader is conducted to the towns, Tournai, Bruges, Ghent, Ypres, Lille, Douai, Valenciennes, Mons, Cambrai, Arras, and Saint-Omer, and to the abbeys near them, and shown how different arts were cultivated at these several centres. The influence exercised upon art by the reigning houses forms the subject of some half-dozen more chapters. A general *résumé* and discussion brings the historical portion to an end.

The author, in his preface, after sketching the scheme of his own work, proceeds to point out that no existing book covers, or attempts to cover, the same ground, and undoubtedly he is right in his contention. He has undertaken to replace a chaos of disjointed studies made by men whose chief interests were with other places or times, by a cosmos of orderly statements based on thorough and exact investigation; and we may say at once that he has done his work, as it seems to us, very well indeed. He has not forgotten (as so many forget) that archives are interesting only in proportion as the things mentioned in them can be made visible, and the facts discoverable about those things interesting. He has carried on the study of works of ancient art along with the study of archives, and each study has served to quicken the other.

When the power of the Roman Empire faded away in the West, and the barbarian invasions began, the ancient culture was not at once submerged. Century after century saw important revivals attempted or achieved. In the district under consideration the seventh century was a very productive period. Christianity had taken root; churches and monasteries were raised and fitted in many places, and art in many forms flourished. The Merovingian kings were (for their day) enlightened patrons of the arts, especially of the art of the goldsmith. Still more successful was Charles the Great's attempt to revive the arts of the ancient world. Europe at the beginning of the ninth century seemed on the fair way to a productive civilisation. Before that century wore to a close the invasions of the Norsemen had devastated all the northern parts of the Continent, and most of the buildings, carvings, and works in the precious metals which had survived from antiquity, or been made in the preceding centuries, were utterly destroyed. The craftsmen themselves were slain or sent wandering, and the nadir of civilisation was reached. The Abbey of St. Bavon, at Ghent, alone (in Belgium) possesses ruins of earlier date than the Crusades. It was built in the seventh century, and the very walls of that edifice seem, by some miracle, to be, in part at any rate, standing. In the tenth century new beginnings were made, but they were no longer attempts to revive past ideals. The barbarian deluge had finally done its work and spread over the district a new human soil with new ideals latent in it.

We have to wait for the great Renaissance till the twelfth century, and then it came, along with feudalism and an organised and powerful church, finally and for ever replacing the Imperial pagan Roman civilisation. Every art began to raise its head anew. Buildings of all sorts were wanted for the newly-constructed society which lived and laboured in towns, and fought behind and around castle walls, which worshipped in churches, required storehouses for its goods, belfries for its bells, town-halls for its magistrates. Tournai Cathedral is the Belgian edifice which contains within its fabric an epitome of the art of this epoch,—from the end of the eleventh to the beginning of the sixteenth century. Examples of both Romanesque and Gothic architecture are found in its different parts. Its walls were covered with paintings, its windows filled with storied glass, and its treasuries enriched with priceless works, amongst which the still existing shrine of St. Eleutherius, one of the finest works of thirteenth-century goldsmiths'-work, always held the first place.

The provinces under consideration, like the rest of Europe, are to be regarded as an agglomeration of towns, each practically an independent republic. Art, therefore, developed along different lines in these various centres, and the student must pursue its course first in one place, then in another. Our author's chapters on the various towns are amongst the most valuable in his work. Ghent is memorable for her corporation of painters, who already possessed written statutes in the year 1338, whilst between that date and 1410 no fewer than 131 painters and 29 sculptors were entered upon the books. Bruges, of course, cultivated all the known arts, and led the way in civil architecture,—her town-hall, which fixed the type afterwards adopted in all the larger towns, being rebuilt between the years 1376 and 1402. Ypres is famous both for her splendid thirteenth-century Cloth Hall (about which the archives are unfortunately silent) and for being the home of the painter Melchior Broederlam. The archives of Douai

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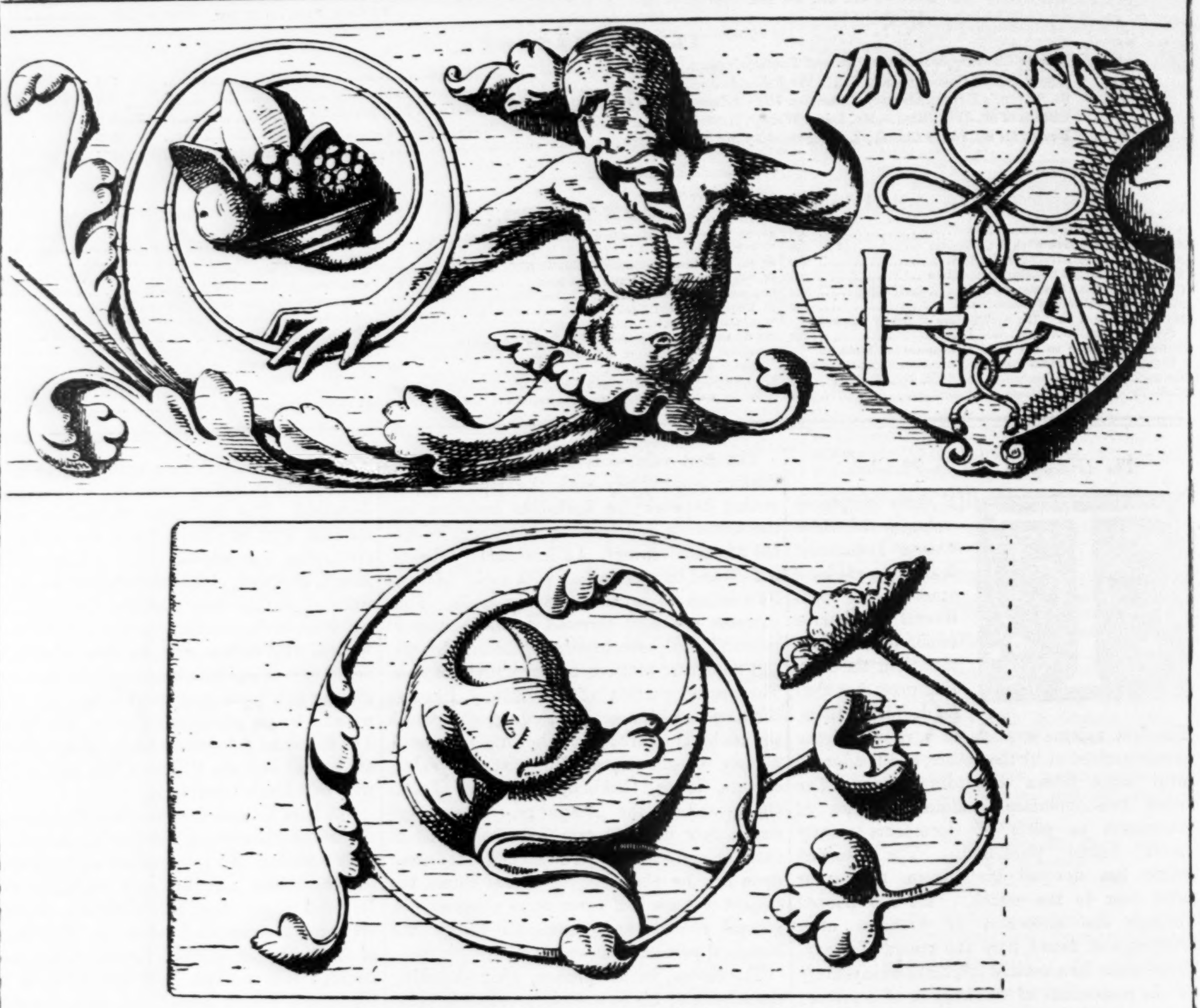
* Histoire de l'Art dans la Flandre, &c., avant le XV^e Siècle. Par Canon Dehaisnes. Three vols. Lille. 1886.



Details from the Organ-Screen, King's College Chapel.

yield excellent spoil. Our author has patiently read all the wills of her burghers, and thus is able to give us a glimpse into the houses of the rich men there, and to show us what splendour of tapestry, painted cloths, jewelry, cups, and the like they contained. Valenciennes produced the previously forgotten artist, Andieu Beauneveu. His name was brought to light by M. Léopold Delisle, who proved him to have been the sculptor of the tomb of Charles V. at St. Denis. We now behold him as painter and miniaturist too, widely famed, and we are able even (by the aid of photography) to look upon two specimens of his excellent handicraft. He flourished about the end of the fourteenth century. Cambrai is full of varied interest. Its cathedral has a notable history. Not far off is Honnecourt, where are the ruins of a famous Benedictine abbey, and whence came Villard de Honnecourt, the architect, whose sketch-book is known to all students of Mediæval architecture. Arras, of course, brings with it the story of the tapestry industry, as to which M. Deshaisnes has discovered two documents of the highest importance.

The inventories of the princes of the period are full of interesting records, by means of which we are enabled to reconstruct much that is lost. Future historians of art will have to devote careful attention to the chapters dealing with this part of the subject.

In conclusion, it may be said that the volumes are excellently printed, and are furnished with the most elaborate indices and with a glossary supplementary to the usual sources of information.

"**Scientific News**" is the name of a new sixpenny illustrated monthly, the first number of which will appear on the 1st of March.

ANCIENT WOOD AND IRON WORK IN CAMBRIDGE.

UNDER this title we have a valuable and interesting illustrative work* on the very fine examples of wood and iron work to be found scattered about among the college buildings of Cambridge. The principal interest of the book is in the woodwork examples, which are more numerous and fine in their way than the iron-work, and which have been very well drawn, for the most part by Mr. Redfarn, who has been, however, prevented, partly by illness and partly by official duties, from entirely completing the work (so we understand from the preface), and some of the concluding plates have been furnished by Mr. H. Chapman, of the Fitzwilliam Museum. The authorship of the letterpress portion, by Mr. J. Willis Clark, the author of the splendid "Architectural History of the University of Cambridge," which we reviewed last year, is a guarantee for the value and reliability of this portion of the work.

In a short preface Mr. Clark observes that the history of English woodwork has not received the attention it deserves, partly from the difficulty of dating the examples, "partly from unaccountable neglect on the part of archæologists." This last charge does not, we think, apply to architects and architectural students, who have drawn English woodwork as diligently as any other branch of our national architectural art, of which it may be considered to form a section; but they have naturally been more taken up with the artistic interest of the work than with questions of history and archæology. Cambridge offers the advantage of possessing a certain number of dated examples, a fact which gives them a historical interest in addition to their artistic value. We do not find, however, that so many of the works illustrated are actually dated as we should have been led to expect from the terms of the preface, nor does there appear to have been any attempt, in making-up the book, to arrange them in any definite or approximate chronological order. It would have been better if this had been done, as far as possible.

The greater part of the work illustrated is of the seventeenth century. There are two or three examples of Gothic work, of which the most important and the best is the desk-end and finial from King's College Chapel (plate 16). An ancient wooden door-frame from Jesus College, with a segmental head within a square-headed moulding (plate 14), is believed to have been part of the work carried out by Thomas Alcock, bishop of Ely, who transformed the nunnery of Rhadegund into Jesus College between 1497 and 1500. "It is framed," says Mr. Clark, "out of a few pieces of timber, moulded and chamfered; not, like modern doors, composed of several small members attached to each other by nails." This latter sarcasm refers, we presume, to the planted-on mouldings of the modern joiner; but all modern doors (*pace* Mr. Clark) are not made in that way. The other Gothic example is the door leading into the Hall Screens at Queen's College, assigned to about 1450, a date confirmed by the general style of the work, which, however, is not of the best type of that date, and is, in fact, a rather poor example, clumsy in execution and tame in character.

The richly-carved cabinet in the Master's Lodge at Trinity College (plate 13) may be regarded as a kind of link between the Gothic and the Renaissance stamp of work of this kind. In this respect it is a highly curious and interesting example. Its general aspect is much more Mediæval than Renaissance, in the manner in which every portion is crowded with ornament, and in the severe and straight lines within which this ornament is mostly confined. The front presents five main horizontal bands of ornament, divided by smaller subsidiary bands, formed by inlays in light yellow and brown woods on the front of the rails between the drawers. The upper drawer is faced with a pattern of common occurrence in early Renaissance or very late Gothic woodwork, consisting of radiating quasi-shell forms confined within semicircular bands. Then comes a rail, with inlaid leaf ornament of nearly Classic character; then the second drawer front, with a flowing naturalistic design of grapes and vine-leaves, distinctly Late Gothic in character, but growing from the mouth of a grotesque mask in a manner more common to Renaissance work. The rail under this is inlaid with a rather weak modification of the bead-and-reel ornament, the members separated by large spaces, and connected by a straight line running along the centre of the rail. The next drawer is a semi-Elizabethan strap pattern, but with leaves of a more Gothic form sprouting from it; and the front of the fourth and lowest drawer is of Late Gothic type, formed of a cresting of a common "Perpendicular" type, with an inverted cresting filling in the interspaces of the lower ornament. Below this, the band of ornament affixed as a finish is completely Renaissance in character, though rather rudely executed; the details are a central vase, with flowers springing from it, and sea-horses in relief on either side; the bottom line of the woodwork, which is clear of the floor, making a broken line, following the sinuosities of the design, in a manner quite out of keeping with the severe lines of the upper portion of the cabinet. The end uprights have an Ionic capital, with cherubs' heads and foliage of a Renaissance type. Altogether, it would be difficult to find in a single example a more curious and interesting illustration of Transition in ornamental style. The date is assigned, for reasons given, to 1612-13.

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* Ancient Wood and Iron Work in Cambridge. By W. B. Redfarn, Member of the Cambridge Antiquarian Society. The Letterpress by John Willis Clark, M.A. Cambridge: W. P. Spalding. London: W. Kent & Co.

One of the best examples given is the Library Door of St. John's College, a portion of the woodwork finished in 1628, of a grand and massive Jacobean type. The door itself is framed with nine equally-spaced deeply-moulded panels, with ornamental devices in the centre; it is flanked by massive pilasters, with faces carved in strap ornament within panels. A carved oak settle, the property of Mr. Redfarn (plate 7), very richly and beautifully decorated with detail of a more refined type than is always found in Jacobean work, is another example worthy of note. In regard to this and one or two other specimens of furniture which have the well-known form of very massive leg characteristic of the period (with a central bulb, as it may be called, a great deal thicker than the upper or lower portion of the leg) no information is given as to whether these legs are turned out of the solid, or whether the thicker portions are planted on. It is melancholy to think, but this bit of humbug is known to have been practised in some examples of the period, at all events.

One of the most interesting illustrations is the Bookcase-end from Pembroke College (plate 15), with a segmental pediment at the top, and a carved scroll projecting from each side at the foot. Mr. Clark's note on this latter feature is worth quoting:—

> "To understand the meaning of the scrolls (or wings, as they are sometimes called) at the base of the bookcase-end, we must consider the ancient mode of arranging libraries. Throughout the Middle Ages, and in some of the seventeenth century, or even later, books were secured by chains. The reader sat on a fixed seat in front of the bookcase, and the chains were made long enough for him to hold his book on his knees, or to place it on a desk attached to the lower part of the bookcase. Subsequently, as the number of books increased, the seat for the reader was replaced by a case to contain books, and his seat was transferred to the bottom of the bookcase, where he sat with his back to the books, and with the volume which he wished to consult on his knees. The end of the seat was concealed by ornamental scroll work, such as we see in the example before us. As time went on chaining was given up, and the reader's seat was no longer required. The scroll, however, had become a customary termination to a bookcase end, and survived throughout the seventeenth century. In many cases the ornamentation is exceedingly rich and beautiful."

But by far the finest piece of work illustrated is the example of carving from the details of the organ-screen in King's College Chapel (plate 18), of which we are enabled to give a reduced reproduction. The combination of breadth and boldness of style with delicacy and grace in detail in this work is truly remarkable, and we quite concur in Mr. Clark's opinion that it was probably executed by Italian artists. The style and *tournure* of the head of the figure, especially, is essentially Italian. The letters H A on the shield stand for "Henry" and "Anne." Mr. Clark speaks of the whole work as "the most beautiful piece of wood-carving out of Italy," and he is probably not wrong in this estimate. "Some special good fortune," he adds, "seems to have protected it, for it has been spared alike by the fanatic and the restorer, and is standing at the present day in the same perfect condition as when it was executed three centuries ago."

Of the ironwork illustrated in the book, the best examples are from the gate at the west end of the avenue of Trinity College, and from the gates under the library of the same college. The details of the former, on Plate 23, are in a very fine and free wrought-iron style, but the main value of the book consists in the illustrations of woodwork, and in this respect it is a real acquisition, for which the best thanks are due to its producers.

NOTES.

WE are glad to see that Professor Huxley, whose opinion certainly ought to have great weight in such a matter, has been speaking out plainly, in more than one letter to the *Times*, against the ill-judged proposal to locate the Imperial and Colonial Institute at South Kensington, about which we have already expressed our opinion in equally decided terms. The only excuse really put forth for the proposed locality is the possibility or probability of obtaining a cheap site; and it is stated that the cost of any adequate site in the neighbourhood of Westminster would be practically prohibitory of the enterprise. We can only say that if the matter of the new building is not taken up as a national concern, on such a scale and in such a situation as will make it a worthy outward and visible sign and form of the intellectual, political, and commercial relations between England and her colonies, it had better be let alone altogether. It is a kind of thing that must be done well or not done at all. Professor Huxley seems disposed to advocate the view that the Institute should be situated in the City; we consider the neighbourhood of the seat of the Imperial Government the proper place for it: each view may have something to recommend it, according as we emphasise the commercial or the political significance of the proposed institution. Professor Huxley evidently regards it as, to use his own expression, "an intelligence department for the army of industry." Without undervaluing that side of the matter, we would regard it also as a centre for drawing closer the political relations between England and the Colonies, and in that light Westminster is certainly the proper neighbourhood for it, and the most dignified one in every sense. A South Kensington site is at variance with both conceptions of the functions of the Imperial Institute.

IN reply to Sir J. Goldsmid's question last week in the House of Commons as to whether the First Commissioner of Works intended to proceed with the new Admiralty and War Office buildings, Mr. Plunkett replied that a Special Committee had been appointed last April to reconsider the question, which Committee lapsed with the dissolution of Parliament; but that a similar Committee would be appointed in a few days to consider the matter afresh. We are glad to hear it. We have always said that every justice should be done to the architects who had, by the mistakes of a former Committee (apparently mainly managed by an incompetent amateur "person of taste" who did not know the difference between drawing and architecture), been put into a position which their design certainly did not merit; but it is a very serious thing that a national building of such importance should be erected which will add nothing whatever to our metropolitan architecture but a bulk of architectural commonplace. It is to be hoped, however, that when the Committee is appointed, some care may be taken to select members who really know something of art and architecture, instead of such a party of mere nonentities (in this respect) as a late First Commissioner of Works got round him in order to carry out his silly scheme for making a sham-antique of Westminster Hall.

THE Government have had plenty of opportunity of judging how far their Railway Bill is likely to meet the grievances it is designed to remove, as deputations representing many different trades and industries have waited upon Baron de Worms and Lord Stanley of Preston to express their views and opinions. Like the representatives of the Railway Companies, however, they have failed to elicit any definite forecast of the proposed measure, but it will probably be brought forward early next week. Lord Stanley promised to hold the scale as fairly as possible between the conflicting interests, though the directors of the Companies,—judging from the remarks at the half-yearly meetings last week,—are very apprehensive of unfavourable results to themselves. They have apparently availed themselves of the opportunity which the delay in settling the controversy has afforded them of making various concessions in favour of the public, as Mr. Moon stated at the London and North-Western meeting that a large proportion of the falling-off in receipts (compared with the tonnage carried) was due to reductions in rates. He strongly advises all railway shareholders to study the book recently published by Mr. Grierson, to which we have had occasion to refer, and which, though open to criticism, is well worth perusal as a powerful contribution to the controversy from a managerial point of view, and as indicating some of the difficulties the railway companies have to contend with. It justifies the remark made by Mr. Thompson to a dissatisfied Midland shareholder at their meeting on Friday last: that it would be penny wise and pound foolish to run the risk of losing such men as the general managers and other leading officials by cutting down salaries. The fact is, the Midland chairman knew by experience that attractive and successful baits are held out from the Colonies and elsewhere to able and experienced railway officials, and that they can ill afford to play into the hands of such competitors at the present juncture.

THE debate on the Ambleside Railway Bill last week, which resulted in the second reading being passed by a majority of twelve (189 to 177), followed the usual lines to which we have been accustomed on such occasions; on the one side the opposition of those who would keep a quiet and picturesque district from intrusion, on the other side those who maintain that the people who want a railway know best why they want it, and that the working of the line as a paying concern depends upon the fact that a certain portion of the population, in the district and elsewhere, actually require it, since people are not in the habit of paying for railway tickets from purely philanthropic motives towards the promoters. We had the usual allegation made, that this is a line only promoted "in the interests of contractors," as if contractors could get a company formed to pay their charges without any prospect of the railway forming a substantial source of revenue. The chief opponent of the Bill, Mr. Bryce, is, of course, far too reasonable and enlightened a man to give utterance to the foolish anathemas against all railways and railway works which we generally hear from the people who oppose a railway Bill on sentimental grounds; and he admitted that considerations of scenery must give way where great public benefit was concerned; he only denied that this was the case here, and Mr. Graham opposed the Bill "on the true democratic principle of preferring the happiness of the greater number of inhabitants," implying, of course, that the public beyond the immediate district had an interest in the preservation of the neighbourhood from railways. In that case let them show it by petitioning largely against the scheme, which it does not appear that they have done. On the other hand, both Mr. Lowther and Mr. Cavendish Bentinck, who knew the district well, gave strong evidence as to the wishes of the residents in favour of the railway. If this is the case, it is to no purpose to say that people in another part of the country do not wish for it. The inhabitants of the district are not to be denied what they want, in order to please people who have no claims upon them. If the district is to be preserved intact for the benefit of the country, the Government should purchase it, as Mr. Labouchere proposed in the only practical sentence in a speech which was otherwise little more than amusing rant. We should regret seeing the railway made as much as any one would, as far as our own tastes and pleasures are concerned; but if it is understood that the residents wish for it, we do not see what argument is to stop the way fairly. We may observe, however, that in other similar cases, railways, when once made (in process of making they are always a nuisance), have not been found to deteriorate the landscape to anything like the extent predicted.

THE want of success of the Hull and Barnsley Railway, the fact that the Newbury and Didcot Railway Company are unable to pay the interest on their debenture stock in full, and the acknowledged failure, from the interest-bearing point of view, of the addition to the Underground line, are likely to make railway directors more careful than ever not to begin new extensions. In every country the time must come when branches and new lines cease to be profitable in themselves or to bring profit to trunk lines. Such a time has, it would seem, arrived in this country, and though here and there from time to time changing circumstances may allow a new line or a new branch to be made without loss, it seems pretty evident that the railways of England have nearly attained their permanent size.

WE understand that the following architects are to be invited to send in designs for the Imperial Institute building:—Dr. Rowand Anderson, Mr. Blomfield, Mr. Collcutt, Mr. Deane, Mr. T. G. Jackson, and Messrs. Aston Webb & Ingress Bell. No complaint can be made of the selection; from among these competitors we are pretty certain to have a fine building, and we only hope the authorities will secure the right site on which to place it.

WE referred recently (p. 209 and p. 244) to the decision of the Superintending Architect with reference to a proposed building on the west side of Brixton-rise, at the corner of Trent-road, and to the reply of the Chairman of the Metropolitan Board of Works to a question put by Mr. Broadhurst in the House of Commons as to the position of the Superintending Architect. Several letters and a memorial were recently presented to the Board on this subject, asking, for reasons stated, whether means could be found for reviewing the decision, on the ground that the wrong portion of the road had been inadvertently brought specially under notice. These letters and memorial were referred by the Board to the Works and General Purposes Committee for consideration and report, and the Board, on the recommendation of the Committee, informed the parties that the Board had no power to take any action in the matter. It appears from the report of the Committee that the Vestry of Lambeth, having received notice from a builder of his intention to erect three houses at the corner of Trent-road, requested the then Superintending Architect to decide the general line of buildings in that part of Brixton Hill with reference to the site upon which it was proposed to build. Mr. Hebb gave a decision to the effect that the general line of buildings on Brixton Hill, between Cornwall-road and Horsford-road, was a line 16 ft. back from the public footway. Mr. Hebb considered that the question was one of fact, and that he had no power to review his decision, and the Solicitor to the Board reports that there is high authority for the opinion that the certificate of the Superintending Architect, if valid, cannot be altered or withdrawn. The memorialists appear to have been under the impression that the Superintending Architect acts under the authority of the Board as regards the determination of general lines of buildings, but this impression is an erroneous one, and the Solicitor to the Board is clearly of opinion that the Superintending Architect, as a statutory officer, should not receive any directions from the Board as to the exercise of his discretion. The Metropolitan Board, on the 11th instant, on the motion of Mr. E. Rider Cook, passed a resolution referring it to the Works and General Purposes Committee to consider and report as to the advisability of applying to Parliament to give a right of appeal from the decision of the Superintending Architect with regard to questions of general lines of buildings.

IT is a coincidence worthy of passing note that the first two sessional papers which were read at the Institute this session, and which form the bulk of the reading in the first part of the new volume of "Transactions," just issued, are both by foreign members, and both upon the subject of colour. The importance of the subject has been too much overlooked both at Conduit-street and elsewhere in this country, but it is now steadily, if slowly, forcing itself to the front, and by the aid of such papers and the by no means unimportant assistance of the Owen Jones Studentship, and the removal of the prohibition of the use of colour in drawings submitted in competitions, it will, we may hope, very soon be better understood and more frequently called in to aid the architect. Signor Boni's paper is especially noticeable as giving an authentic and somewhat detailed account of a famous building of which little or nothing was really known to the present age before Signor Boni's researches.

WE have received a collection of twenty-nine plates, constituting the second volume of "The Glasgow Architectural Association Sketch-Book." The collection comprises a great number of pretty sketches and notes,—some of them executed with much taste and skill,—and a certain number of useful studies of detail. The sheets of scraps from France and Switzerland by Mr. A. N. Paterson and Mr. J. A. Campbell are particularly good; the same may, indeed, be said of Mr. J. Keppie's Italian doorways and of Mr. A. N. Prentice's sketches at Lincoln, Mr. J. Thomson's St. George's Windsor and Dryburgh Abbey, and Mr. William Ferguson's gables and dormers at Shrewsbury. Mr. A. R. Scott's west front of Dunblane Cathedral is quite the best of the measured work. The reproductions of water colours are rather black and heavy, but in other respects the "get up" of the plates is exceptionally successful.

THE extensive demolitions for the widening of Upper-street, Islington, are nearly completed. They include, along the eastern side, all the buildings,—excepting Dowbiggin's parish church of St. Mary, opened in 1754, and the quite modern dispensary,—from the Unity Church southwards to the Green, *olim* old Paradise-row, being Nos. 276 to 330, and comprising the Fox tavern and the Congregational chapel; and, along the western side, Nos. 156 to 168, between the approach to Waterloo-terrace and Barnsbury-street. On this latter ground a site of about 10,000 ft. superficial is reserved for the construction thereon of artisans' dwellings. Very nearly all of these houses are planned in the large-scale map of 1805-6 belonging to the parochial authorities. The index to that admirable piece of work has, we are informed, been mislaid; but we gather from other sources that the rows of houses along the church side of the street were, at one time, severally known as Upper-terrace, Rufford's-buildings, and Church-row. On the opposite side of the way yet remain one or two tenements of much earlier date than the current century. Albeit in a local survey of the year 1735 the now Upper-street is set out, for the most part, in the guise of a village highway.

AFTER having been for some time in the market for sale at auction, the Jervaulx Abbey demesne has just been purchased for, we understand, 310,000*l.* (exclusively of the value of the timber) by Mr. S. Cunliffe Lister, of Bradford, manufacturer. This important and beautiful old property, situated in the vale of Wensleydale, formed portion of the Yorkshire estates held by the Marquess of Ailesbury's trustees in the North Riding. Watered by the river Ure, it comprises some 10,002 acres, yielding a gross rental estimated at say 11,600*l.* a year. About five years ago Mr. Lister also bought of Admiral O. Harcourt's widow, for 400,000*l.*, the adjoining Swinton Park property of nearly 23,000 acres in extent. Whilst all trustworthy authorities do not agree in reckoning the abbots of this famous Cistercian monastery amongst the few "mitred" abbots north of the Trent, there seems to be small question that they did on occasion assume that proud distinction. This is apparent from the mitres which are carved on the incised slab in the chapter-house of Peter de Snape, seventeenth abbot, who died in 1436, and on the slab, in Middleham Church hard by, of Robert Thornton, died 1533, twenty-second abbot. Moreover, we learn from Stowe's chronicle that the lord abbot of Jervaulx, taking precedence of his Cistercian fellows from Bellaland and Fountains, ranked as thirty-sixth on the roll of the sixty-one abbots who, with many other dignitaries, attended to King Edward I.'s summons for a great Parliament at Carlisle in 1307. Of ruins are extant the church, cloister, choir, transept, chapter-house, and refectory. This property, lying in a district that has for several generations been famed for its horse-breeding, passed to the Bruce family by the marriage in 1676 of Elizabeth, daughter of Lord Beauchamp, with Thomas, Earl of Elgin and Ailesbury. We follow the now customary spelling of the name, but may observe that in the earlier charters and down to Abbot Thornton's time it appears as Jorevall, Jorevalle, and Jorevallis. We subsequently meet with more than twenty-five other forms, including Geroval, Gervise, and Yorevaulx, until we come to the quite modern and prosaic Jarvis. The worldly "Prior Aymer of Jorvaulx Abbey" will be remembered by all readers of "Ivanhoe." The East Tanfield, the Tanfield Lodge, the Wath, and the Swainby and Whorlton Castle properties form the complement of the whole estates. The sale was made by private arrangement with Messrs. Chinnock, Galsworthy, & Chinnock.

THE numerous suggestions put forward for bolstering up the Crystal Palace, both at the special meeting of Saturday last and in the letters of individual correspondents, each offering his panacea, form, it must be admitted, sufficiently amusing reading, and suggest the idea that most of the persons interested in the concern are more or less out of their minds. Mr. Morgan Howard, M.P., the mover of the first resolution at the meeting referred to, concluded his speech by asking "Why should not the Crystal Palace be the home of the proposed Imperial Institute?"—a query followed by "loud and renewed cheers." If the management of the Palace has been influenced by any persons who are idiots enough to make and to applaud such a proposition, it is not difficult to understand how it has come to grief. The whole meeting seems to have been a demonstration in favour of the eleemosynary support of the Palace for the benefit of shareholders and season-ticket-holders against all ordinary considerations of logic, fairness, and common-sense. The letter of Mr. G. P. Witt, which followed the report of the meeting in Monday's *Times*, made some practical criticisms as to the management (or want of management) of the Palace; the *laissez-faire* way in which it has for some time been allowed to go on; the neglect to seize such an opportunity, for instance, as the sale of "Old London," which was allowed to go for an old song as builder's materials,—and so on. It seems to have been supposed for some time past that the Palace could go on merely from its acquired reputation, with little attempt at putting new life into it. "A Bystander" suggests that the directors should try private enterprise, and invite tenders for leasing the building for a term of years. But those who make these suggestions forget the nature of the structure they are dealing with. What contractor in his senses would take, at any remunerative rent, a great greenhouse like that, with all the inevitable and increasing expenditure for repairs, with the expectation of obtaining an adequate percentage on the enterprise? That is what is at the bottom of the difficulty. The building is a glass and iron structure of an essentially temporary character, and it has now arrived at a period in its history when extensive repairs and even a great deal of reconstruction must be necessary,—a side of the matter which none of the writers to the *Times* seem to be in the least aware of. The moral of the whole business is,—if you want a permanent institution, erect a permanent building for it.

EDINBURGH MUNICIPAL BUILDINGS COMPETITION.

In response to the advertisement issued by the Magistrates and Council of the City of Edinburgh in August last for competitive designs for the proposed New Municipal Buildings, fifty-six sets of designs have been sent in, each illustrated by an average of fourteen sheets of drawings. These comprise plans, elevations, and sections to a scale of 10 ft. to an inch; block plan to a smaller scale, and one or more sheets of half-inch-scale details of parts. The greater number of the designs submitted come from across the Border, most of the more eminent Scotch architects having refrained from competing, believing that some of the conditions of competition were unsatisfactory, and, further, that there was some uncertainty as to whether the buildings would be carried out or not. Several of the younger Scotch architects show designs of conspicuous merit, and one of them has secured the second premium, the other two premiums falling to London practitioners.

The site, which is an enlargement of that at present occupied by the Municipal Buildings, may be described as a square with a notch out of one angle, or as a short L, having its base to High-street, opposite the eastern end of St. Giles's Cathedral, Parliament-square, and the Crown Offices, with its head stretching northwards to Cockburn-street. The northern end, though nominally the back of the building, is really its most important frontage, as it stands at an elevation of 65 ft. above Princes-street, from which an uninterrupted view of it will be obtained across the intervening valley and gardens. The site may be said to occupy the eastern end of the crest of the Castle Hill, the western extremity of which is occupied by the Castle itself, while the *coup d'œil* between the two embraces, such important public buildings as the Bank of Scotland, the Free Church Assembly Hall, the Established Church Assembly Hall spire, and the crown-topped tower of St. Giles's, to say nothing of the historical and picturesque old buildings which crowd the Castle Hill. Another feature which adds to the architectural possibilities of the northern frontage is the fact that the level of Cockburn-street is considerably below that of High-street. Most competitors have recognised the paramount importance of the mass and grouping of their designs towards Princes-street, and, while giving due consideration to the treatment of the High-street façade, have directed their chief efforts to the realisation of an effective composition as viewed along the line of Princes-street. The eastern and western limits of the site are bounded by open closes or lanes of a minimum width of 20 ft., but the adjacent buildings on the northern half of the site are so low as to leave the greater part of the new building visible above their roofs. Regarding the height and openness of the site, which is eminently one to be seen from numerous standpoints, and in the view of which the surrounding buildings cannot be excluded, it is a matter of special regret that perspective drawings were prohibited in the competition.

Mr. Alfred Waterhouse, R.A., was appointed architectural assessor to advise the Corporation in the award of the premiums, and after a careful examination of the whole of the designs submitted, which are advantageously hung in the Waverley Market, he has made the award which we announced last week, and the full text of which we now give on another page.

The premiated designs become the absolute property of the Magistrates and Town Council, who are at liberty to employ any one they think fit to carry out the work.

"Edina Classica."—This is the design to which the first premium has been awarded. The plan shows a long quadrangle or courtyard, 108 ft. by 70 ft., with the buildings ranged round the east, west, and north sides, the south side being open except for a colonnaded screen, arranged for foot and carriage traffic towards High-street. In the centre of the north end of the courtyard is the principal entrance and staircase, while immediately within the colonnade in the south-east and south-west angles of the courtyard are placed two minor entrances, with staircases for the ordinary business public. Continuous corridors connect these three staircases on the several floors. They are lighted from the side closes or lanes, the apartments entering from them being lighted from the courtyard. Availing themselves of the inequalities of ground-level, the authors (Messrs. Leeming & Leeming) have provided what they call two ground-floors, one a flight above and the other a flight below the level of the courtyard. On the latter level are placed the Burgh Assessor and Burgh Engineer, the Collector of Police, several of the Registrars, and the City Roads department, and on the latter level the Town Clerk and City Chamberlain. To right and left of the principal entrance are located the Burgh Court-house and the rest of the Registrars. On the first floor, occupying the north block, immediately over the Town Clerk and City Chamberlain's department, and overlooking Princes-street and the Firth of Forth, are the Council Chamber and committee-rooms, Lord Provost's room, &c., while on the same level, in the east and west wings, are placed the Water Trust Offices, the Dean of Guild Court-room, and the Superintendent of Works office. The Clydesdale Bank premises are entirely detached from the Municipal Buildings, which is a very good feature. Over the bank premises are the Heriot Trust offices, connected by a bridge on the first-floor level with the main building. The architecture is a severe type of Palladian Classic, the various parts towards High-street being well composed. The extremities of this façade are accentuated by small domes, and a large dome is placed over the grand staircase, centering with the courtyard and the north elevation. This elevation is much lacking in interest. The architectural base of the building is four stories high, and all of equal height, while the rustication and fenestration are the same in each. Over this is a columnar treatment extending through two stories, with an entablature and balustrade over, which gives a perfectly straight sky-line,—there being no roof or chimneys shown,—broken only by the great dome. The great severity of style and simplicity of treatment towards Cockburn-street is insisted upon by the authors as most suitable for the situation by contrast with its surroundings. This is not the view we should take of the situation, the whole grouping of the Castle Hill appealing for something in harmony, not in contrast, with its picturesque formation. While it is true that the breaks in the line of frontage would give a less rigid sky-line in perspective than is seen in the geometric drawing, yet an elevation of 170 ft. in length and 120 ft. in height seems to call for more than one feature in its composition. The drawings are a marvellous example of painstaking and careful draughtsmanship, and are beyond all praise in their style; it is not a type of draughtsmanship that every one would care to emulate; and the constantly-increasing importance given to draughtsmanship in competitions is a matter to be regretted. Draughtsmanship is not architecture, and the most beautiful execution of drawings will not atone for want of force and originality in the actual building. The estimated cost of the building is 98,000*l.*, but it may be said of this as of the majority of the other estimates, that it is rather under than over the mark.

"Nineteenth Century."—This design is by Mr. Malcolm Stark, of Glasgow, and was awarded the second premium. It has a central quadrangle with buildings on all four sides, those on the east, west, and south sides being restricted in height to 45 ft., measuring to the top of the balustrade. The plan, which is perhaps the most easily read in the room, is strikingly symmetrical and well balanced. The principal staircase and the two minor staircases, with their connecting corridors, are placed similarly to those of "Edina Classica." The Council-rooms, which are arranged with much stateliness and convenience, are, as in "Edina Classica," placed on the first floor in the north block, but in this case the Town Clerk and City Chamberlain are on the same level, occupying the east and west blocks, the officials' rooms being placed so as to give them command of their departments, and easy access to the Council and Committee rooms. The Collectors' offices, in connexion with the Police and Water Trust, are most conveniently placed for the ratepayers, while the Burgh Court and Dean of Guild Court, in the eastern extremity of the High-street front, are well isolated from departments with which they have no connexion, and are themselves convenient of access. The architectural treatment shows a free rendering of Classic, recalling some portions of the Louvre. A high campanile is placed at the east end of the High-street façade, while towards Princes-street the composition is well grouped by a central colonnade with pediment over, supported by two towers finished after the manner of the two western towers of St. Paul's, and supported by side roofs running at right angles to that over the central pediment. The sheet of details is beautifully drawn, and exhibits a familiarity with the ornamental detail of the free type of Classic chosen. The estimated cost is 120,600*l.* with the great tower, and 112,740*l.* without. An alternative elevation is shown omitting the tower, by which the design loses nothing and would be less likely to detract from the tower of St. Giles's.

"In my Defence."—This design, which was submitted by Mr. J. W. Simpson and Mr. E. J. Milner Allen, has taken the third premium. The plan is arranged with buildings round the four sides of a central quadrangle, but the quad is divided across its centre by a lavatory block, which reduces it to two courts, each about 45 ft. by 35 ft., which become simply wells for light. The northern one measures 105 ft. from the ground to the top of the balustrade. While the two other premiated designs light their corridors from the surrounding closes, and their apartments from the central quadrangle, this design reverses that arrangement, and lights the corridors from the courts and the apartments from the closes. To secure good light at the side, the east and west wings have been set back from the boundary-line, so as to secure a sufficient open space between them and the adjacent buildings. By placing the corridors to the inside of the block their length is greatly reduced, but the dignity and beauty of the open quadrangle is lost, and in this case has not been compensated for by any special dignity in the entrance-halls and staircase. This design also differs from the others premiated in that it places the Town Clerk and City Chamberlain on the ground floor and the Council Chambers on the first floor, towards High-street, and the minor officials and offices in the north block. By this means a south light is obtained to the important apartments, but a due regard to the site and outlook would dictate the north wing as the proper place for the Council Chambers. In the matter of architectural style "French Renaissance has been adopted by the authors because, while susceptible of great dignity and breadth of treatment, it is also more readily adapted to modern requirements in regard to the proportion of window to wall space than the Italian, while it possesses a common resemblance in many of its forms to the Scottish Baronial Architecture." The authors have not made the most of the style chosen, the treatment of the various façades being thin and over-restrained, while the detail shows more of modern French feeling than a close acquaintance with the Renaissance of François I. They have also placed themselves under voluntary restriction by omitting any tower or dome which might compete with St. Giles's. This is a point which it would be well to observe in the execution of the building, and the authors would probably not have suffered by the omission if perspectives showing the grouping of the building with its surroundings had been permitted.

"Fortuna."—The plans sent in under this motto are hung next to those of "Edina Classica," to which they bear a striking resemblance in general disposition. Starting upon the same basis, that is, with the axis of the building struck from the centre of the Market Cross, the buildings surround three sides and part of the fourth side of a quadrangle, the centre portion of the south side being open, with a colonnaded screen. The principal and minor entrances and staircases, the Town Clerk's and City Chamberlain's offices, and the suite of rooms for the use of the Town Council, are placed identically as in "Edina Classica." The corridor in the east wing has a break in the centre of its length, which gives the plan a somewhat involved appearance. The type of architecture chosen is the Scottish phase of the Classic Renaissance, of which the author quotes the quadrangle of the present Municipal buildings as a good example. He has certainly treated it in an able and skilful way, and shows a set of elevations in every way superior to those of "Edina Classica," and much better suited to the situation. The fenestration and mural treatment of the walls all round are well proportioned and full of interest, while the details show this type of Classic to be at once dignified, refined, and plastic. There is a dome over the centre of the Cockburn-street front, and a tower at the east end of the High-street front. The estimated cost is 125,000*l*.

"Ora et Labora."—This plan also has the buildings grouped round three sides of a quadrangle, 95 ft. by 80 ft., open on the south side. The position of the Council Chambers on the first floor of the north wing, and the arrangement and lighting of the grand staircase, are very similar to those of "Nineteenth Century," but the rooms of the various officials are not so well disposed. The authors have selected Italian Renaissance as being "a style combining the simplicity of outline required by the site, the dignity of appearance befitting the abode of a great civic body, and the freedom of treatment rendered necessary by the more complex requirements of the age," and it is not too much to say that they have attained all the objects which prompted them in their selection. For scholarly handling, dignified treatment, and refinement of detail, especially as exhibited in the Cockburn-street elevation, this design is probably without a rival in the room. A broad massive base, pierced with windows just sufficiently enriched and varied to avoid monotony, supports a rusticated story with square-headed windows. The upper floor which rests upon this has a range of Corinthian columns standing clear from the wall behind and carrying a full entablature. These columns are spaced into three groups in the length of the façade, and between each group is a deeply recessed balcony from the Lord Provost's and the Town Councillors' rooms respectively. To the left the receding masses terminate in a great campanile modelled closely upon that of St. Mark's, Venice, the whole combining in producing an effect which it would be an acquisition to Edinburgh to obtain. The cost is put down at 280,000*l*., but is probably much overestimated.

"Light and Air."—This plan, which is so highly spoken of in Mr. Waterhouse's report, stands quite alone in its arrangement. It is cruciform in shape, with the head of the cross next High-street, and the foot extending northwards towards Cockburn-street, while from the extremity of the cross arms corridors lead to east and west wings at the respective extremities of the site. Like "Edina Classica," the authors have availed themselves of the inequalities of ground level to form two so-called ground floors. On the lower of the two are placed the Collector of Police and some minor officials, and on the upper the City Chamberlain in the left arm or transept, the Town Clerk in the right, and the Water Trust office in the centre or main body of the cross. The first floor is principally occupied with the suite of apartments for the Town Council, the Council Chamber being placed at the northern extremity of the cross. Whatever its merits may be as an ideal plan,—and Mr. Waterhouse has given his opinion in no uncertain language,—it is not at all adapted to the site in question; while the elevations can only be described as bad specimens of modern German-Greek, which would produce a jarring discord if set upon the Castle Hill.

"Fiat."—This design, while adopting the three-sided courtyard centring with the Makret Cross, differs from those previously described, in that it aims at the isolation rather than the connexion of the various departments into which the municipal business is divided. To secure this there are, in addition to the principal entrance in the centre of the north side of the quadrangle, four minor entrances giving direct access to the offices of the various officials, internal communication between the departments being also provided. This arrangement is possibly one which would work well enough in practice, but is not one which produces an effective or telling plan upon paper. The Council Rooms are placed where they ought to be,—in the north block on the first-floor level. The architectural treatment is Classic, of a healthy masculine type, with a dome over the centre of the north wing, and a tower in the centre of the eastern wing of the High-street façade. The elevations are boldly and well drawn, and show a familiarity with Italian Renaissance. The estimated cost is 125,000*l*.

"N. D. I. V."—The authors of this design seem to have had the same object in view as that of the authors of the design last described, viz., the isolation of the various working departments, which they have sought to accomplish in a similar manner, though in the first floor in this design there is a wide and well-lighted corridor running round the four sides of the quadrangle. The state entrance to the Council Room is directly from the High-street, and the principal staircase is placed in the centre of the east side of the quadrangle. The elevations are Classic, of the same healthy character as that of "Fiat," with bold late sixteenth-century detail. They are most effectively drawn, and show an individuality rising far above the conventional setting-out of Classic façades, though exception might be taken to the main tower rising from the top of a pedimented portico.

We will return to the subject next week, when we hope to illustrate the three premiated designs. In the meantime we give on p. 330 the official report of Mr. Waterhouse as the professional referee in the competition.

CLISSOLD PARK, STOKE NEWINGTON.

Statutory notice is given of a project to purchase the freehold of certain lands and buildings at present held by the Ecclesiastical Commissioners in St. Mary, Stoke Newington, parish, for purposes of public recreation and benefit. The land consists of some fifty-three acres, now known as Clissold, or Stoke Newington, Park, which it is proposed to vest, as regards their maintenance and regulation, in the Metropolitan Board of Works. The residence and its site therein are to be committed to the Vestry for use or adaptation to "the purposes of a vestry-hall, public museum, free library, public baths, or washhouses, or any other parochial purposes." The intended Act provides for contribution towards the necessary funds by the Metropolitan Board of Works, the Corporation of London, the South Hornsey Local Board, together with various other local or district boards; as well as by the Charity Commissioners and the trustees of the City of London Parochial Charities when established as provided by the City of London Parochial Charities Act, 1883.

Lying within the Finsbury Division of Ossulston Hundred, the area in question is bounded by thoroughfares whose names bear witness to the once universally rural character of their surroundings. Thus, to the east and west respectively are Queen Elizabeth's-walk and the Green-lanes; Lordship-park and Manor-road pass northwards; its southern confines extend to Church-street and Paradise-row. Through its broad rich meadows meanders the New River, whose gently-flowing stream, fresh from the reservoirs and filter-beds near to Finsbury Park, sweeps with bold curve, and amidst some of the most varied and luxuriant foliage that northern London can show. Hard by, beyond Queen Elizabeth's-walk, behind the church, lies the *ci-devant* seat [*] of Thomas Gunston, whose sister, Mary, became second wife to Alderman Sir Thomas Abney, the zealous Hanoverian member for the City. Watts had been received into his house at Theobalds by Sir Thomas in 1712. On his host's death (1722) he continued with Lady Abney and her daughters, and with them removed, in 1733, to the house her brother had built in Newington. Watts had, ere this, spent five years at Newington as tutor in Sir John Hartopp's family. With a constancy of friendship and uniformity of conduct not often to be found, writes Dr. Johnson, Sir Thomas Abney and his family treated Watts for thirty-six years with all the kindness that friendship could prompt and all the attention that respect could dictate. In the 115 acres of Finsbury Park we see what still remains of the Bishop of London's hunting-ground, Hornsey Wood, being another relic of the forest which, here traversed by the Ermine Way, extended over Middlesex. Before the Dissolution, Hornsey formed one of the great shire manors that appertained to the see of London. Brownswood, in Hornsey, and Newington manors are commemorated to this day by prebendal stalls at St Paul's Cathedral. Stoke Newington figures in Domesday Survey as Newtome; as Stoc or Stoke Neweton in the fourteenth century; and here, in 1649, were yet left 77 acres of woodland in demesne.

We gather that this estate, lately the residence of the Rev. Augustus Clissold, belonged for many years past to the Crawshay family. From a published letter of Mr. George Crawshay [†] it appears that twelve months ago the property consisted of two portions, one of 25½ acres, freehold, and the other a perpetual leasehold of 27½ acres, over which the Ecclesiastical Commissioners had such rights as to hunting, fishing, and hawking, as were set up by the lease which was first granted by the sport-loving Dean and Chapter of St. Paul's. This lease was held at 109*l*. per annum and a fat turkey. That the park preserved much of its pristine character is doubtless due to conditions which prevented the granting of building leases or the felling of trees. Mr. Crawshay used to admit visitors on Saturday and Sunday afternoons, in summer-time, into the leasehold portion of his grounds. So sensible was he of their value to the public that, whilst ready to sell 20 acres of the freehold, he reserved the remaining 5½ acres on which the old house stands, because, he says, of the extreme beauty of the grounds, which, together with the well-timbered leasehold, and the shaded and encircling waters of the New River, make up a whole which he trusted would never be destroyed. "But," adds he, "my power to prevent this is limited by my life." Mr. Crawshay, however, has since parted with all his interest in the whole of the property. The parishioners are most anxious to secure this, the one only space that is left to them, and it is to be hoped that, as at Kilburn and Highgate, the Commissioners will prove willing to meet them with a liberal spirit. It is understood, as matters now stand, that they are ready to accept a sum of 95,000*l*. for the property.

Manchester Architectural Association. The ordinary fortnightly meeting of this Association was held on the 22nd inst., at the Diocesan Buildings, Mr. L. Booth, President, in the chair. Mr. W. H. Rawle read a paper on "The Architectural Assistant," which dwelt more upon the social prospects than upon the technical details pertaining to the duties of that member of the profession. His argument was that the complaint of want of employment was due more to the overcrowding continually going on of pupils, &c., rather than to the low state of the building trade. This ultimately affected every architect, of whatever standing. The author proposed as the most immediate attempt to lessen this evil that statistics should be collected as to the real number of pupils, and disseminated in pamphlet form throughout the architects' offices of the country. A discussion followed, in which Messrs. Hodgson, Mould, Ward, Stelfox, and the Chairman took part.

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[*] Now the Abney Park Cemetery, south of Stamford-hill. The house was pulled down in 1844.

[†] Vide the *Times*, January 14th, 1886. With this letter should be read a communication, in that paper of 7th idem, by Mr. H. R. Williams, Chairman of the Hornsey Local Board.

MR. WALTER CRANE ON "THE ARCHITECTURE OF ART."*

ART AND COMMERCIALISM.

THE architecture of art is a somewhat comprehensive title, and you might not unreasonably expect of me, before proceeding with the structure and treatment of the subject in perspective, to give some sort of scale sketch, ground plan, and elevation, so that the general drift of my argument may be understood.

I do not propose to deal exactly with the various forms and styles of architecture as they are and have been manifested in plastic or graphic art; or with the predilections of different designers and painters for certain forms over others as accessory to their compositions, interesting as such a comparative study might be. I am taking the term "architecture" in its widest sense, considering it not only as an art in its connexion with and effect upon other arts, but as the fundamental, comprehensive, and sustaining framework both of life and thought,—the historic and living background which influences and moulds all our ideas,—the set-scene upon which is enacted the ever shifting drama of art.

In comparing the art of the present day with the art of the past, especially of any well-defined epoch, whether Mediæval or Classical, we cannot fail to be struck with one great distinction underlying all superficial differences. Whereas art in past ages seems to have germinated and to have been continually evolved in new forms,—to be alive, and spontaneous, as it were, growing like a thing of nature, and expanding with man's ideas of nature, beauty, and life,—in our day this sense of spontaneity, this natural growth, is scarcely felt. Conscious and laborious effort takes the place of spontaneous invention, and originality is crushed by the weight of authority and precedent. The student is confounded and abashed by the mass of examples,—the dry bones in the strata of museums and books of what were once living and breathing organisms in the world of beauty. No form of architecture or art seems to spring naturally and unaffectedly out of the actual necessities and demands of daily life.

I have heard it said that the Great Exhibition of 1851 is to be held accountable to a great extent for the vulgarising and commercialising of art, and especially for the great break-up of old traditions of craftsmanship and design. But in so far as this took place it was only the effect of causes lying far deeper in the great economic changes affecting the conditions of the production of all works whatsoever, which had been going on during the three previous centuries. That exhibition, as succeeding ones have done, merely summed up the results of these changes, and showed their effects for good or evil, declaring, to all whom it might concern, that the apotheosis of commercialism meant the degradation of art.

This will seem a hard saying to such as are accustomed to believe that the accumulation of riches and the welfare of art go hand in hand. It is the boast of modern commerce that, to use its own phrase, it has placed art "within the reach of all." But will this fair picture bear examination from more than one point of view? Does it not, like some others, look best at a distance? Is there not reason to believe that the promises of Commerce, even when kept to the ear, are broken to the hope?

Take, for instance, one of the most obvious effects of its action in house-building. Trading on the national shibboleth, "An Englishman's house is his castle," and taking advantage of those centralising tendencies which have led to the enormous increase of cities, commercialism has produced those miles and miles of brick cages which have ruined the architectural character and proportion of every large town in the kingdom. What then are these? These are your Englishmen's castles, on a small scale, it is true, and run together,—semi-detached or by the dozen. There are not hills enough for the castles required, and what hills there are belong to somebody else. What is easier than to build them side by side? They will help to support each other, and economise bricks, mortar, and ground; and why trouble to make a fresh design for each castle? The little lord's wants are much the same as the big one's, only on a smaller scale, like his purse. He must, of course, have his outer line of defences,—his portcullis and drawbridge,—well, at least, his iron railing and portico, that he may speak with his enemy, the tax-gatherer, in the gate. Then, as matter of course, dining-room, drawing-room, bed and bath rooms, gas and water laid on. Why should not he be happy and comfortable? It is all "so cheap, too!" Yet the speculative man, the man of profits,—the kindly builders who multiply these miniature strongholds for the average Briton, wherein he may defy all the world but his landlord,—we do not account exactly as public benefactors! Here are the bee-cells ready made for the occupants of the national hive,—dwellings for the average man. Never mind if they do not always fit him. We cannot be expected to take account of round or square bodies. If the majority are hexagonal the rest must put up with the inconvenience and a little squeezing. Great is Average! We will not speak of other cells and cellars, dear at any price, where our working-bees and bees-out-of-work have to pack with even less range of choice, and without even the pretence of art or comfort.

Jack is rarely able to build his own house nowadays, so Jerry builds it for him; but the well-known drama of rat and cat, the dog and the cow "with the crumpled horn" is still enacted, with, perhaps, some changes in the cast, and new scenery and dresses.

Meanwhile, how fares it with art in the house that Jerry built? Do the streets produced on these principles, and at such a terrible rate, lend themselves either to pictorial or decorative treatment? Do they suggest any ideas even, except, perhaps, of the dustman? How is it possible that they should?

Well, but the man of profits is ready again. The Briton can get his art cheap, too. "Wholesale or retail." He can have cheap dados and bits of coloured glass thrown in here and there. If these are not enough, he can fill his house with "Early" or late "English" furniture, "surmounted by something Japanese." Should his aspirations remain still unsatisfied, he can take the illustrated magazines to tell him about every art under the sun, and how it is done. In fact, if the literature of the subject could make artists and craftsmen, every street should be bristling with them.

Every Christmas scatters oil-paintings after our first masters, fresh from the printing-press, over the British empire. A shilling or so will secure a whole gallery. Was ever anything like it in any age of art? Truly no. Still, we are not happy. We are not happy about our art. We English, especially, we allow Frenchmen or Belgians to teach us painting, and our American cousin how to do nearly everything else.

Now, I am not going to say it is all the fault of the Royal Academy. That institution, as regards its chief feature, the annual exhibition, is only another engine of the man of profits, which, frankly recognising the commercialism of the age, endeavours, "by special appointment" and self-election, to adapt the business of picture-painting to it, without troubling much about architecture and sculpture, and leaving the applied arts to apply elsewhere, or shift for themselves. It is but due to say, however, that the Academy endeavours to counteract the influence of the new masters in the summer by the examples of the old masters in the winter; on the principle, perhaps, of the Mediæval system of doing penance.

In the course of evolution we are passing through a period of disintegration and differentiation. Art cannot escape the tendencies and influences of its time, which, indeed, it is of its very nature to illustrate. The artist, like all other workmen, has become more and more specialised, and the unity of the arts has been broken up. The painter is no longer the master-craftsman among his workmen and apprentices, prepared to do all things in the province of design from the pattern on the hem of a garment to the painting of an altar-piece. He is now rather the juggler in the market-place, who with a particular sleight of hand can command a particular phase of sea or sky; or he has the trick of the flattering glass in portraiture. Perchance he seeks to draw iron tears down the cheeks,—not Pluto's, but of the philanthropic Plutus, and golden ones from his pocket by peculiar domestic pathos; or, in stage lights, by the contrasts of wealth and misery, chilling his blood by melo-dramatic horrors; or by seeking to glorify his patron in his happy hunting-ground, surrounded by the images of his sacred animals.

Painting, perhaps, has always been more or less at the bidding of the dominant orders of its day, but more notably so since she left her roof tree and parted company with architecture and sculpture and all the fair and fascinating troop, controlled by a common impulse and a common devotion that throng in the splendid retinue of Design.

We look back down the long vista of ages and epochs and read their spirit in the unmistakeable language of art, coloured as it is by the human systems and beliefs of which it is the monument. Whether, as in the wall paintings and reliefs of Ancient Egypt and Assyria, it is devoted to the glorification of military or sacerdotal despotism, or the systematised symbolism of an ancient nature-worship, humanised and made beautiful by the Greek informed by freedom and life; captive and decaying amid the corruption of ancient Rome; or, fused with a new splendour from the East, rising in the solemn magnificence of Byzantine architecture; and so, through the Gothic, flowering in the vivid imagination of the Middle Ages absorbed in the new mysticism, yet, through the Church, linked to the hopes as well as the fears of humanity. Then, with the new thoughts and ambitions of the Renaissance, art rekindles her lamp at the shattered shrine of classical sculpture and learning, until, overwhelmed with artifice and pedantry in succeeding centuries, she is forced back to nature and life again on the threshold of our own time.

But, again, she is in danger from a new tyranny in that unscrupulous commercialism, which is not less dangerous because less tangible, and not less despotic because it is masked under the forms of political liberty.

Steam machinery, like a many-headed, many-handed dragon, rules industry literally with a rod of iron, and fain would it make Art prisoner too. Intended for the service of man, and for the saving of human labour, it has, under our economical system, enslaved humanity instead, and becomes an engine for the production of profits,—an express train in the race for wealth, only checked by the brake of what is called over-production. Who can tell what will be the end of the journey? Thus we are driven to the conclusion that the whole force of our economic system is against spontaneous art; that it is, in spite of it, if there is any life left in art yet.

As William Morris has so strikingly pointed out, the system of producing all things for profit, which has succeeded the old one of producing for use,—the necessity of selling in the big world market; division of labour; and lastly, machine labour, have rapidly destroyed the art of the people, as they are fast vulgarising and destroying all local characteristics in art in the surroundings of common life, in all countries open to the trader.

The system of absolute individual ownership of land, which, with the advance of commercialism, has displaced the ancient system of tenure, and defrauded the people of their common rights wholesale, naturally leads to much destruction of natural beauty, or, where not destroyed, it is made inaccessible. The same system, too, is answerable for what may be called the destruction of architecture in the abnormal growth of the big towns, already alluded to, which year by year throw out their long and aimless feelers, that literally feed upon the green country. When we speak of our advance in the spread of education, we too often forget that no education of the schools can really compensate for the loss of those influences of an early life passed amid hills and woods, or by the sea, which are an education in a lore never to be forgotten. The village child who knows the birds, and can tell you where they build their nests, has learned straight from nature's book, which is the best of primers, and no system of elementary education can take its place.

Overshadowed by such conditions of life as falls to the general lot, what wonder is it that we should get our art by accident,—that it should be, in a great measure, the art of accident, in spite of elaborate systems of art-training, and the elaborate unlearning of them which sometimes follows. Happily the sense of beauty and nature cannot be altogether suppressed under the most perverse social condition. It is sometimes urged in defence of modern life that it has artistic aspects, that strange and wonderful momentary effects are seen in London smoke fogs, for instance, amid the fiery eyes of railway signals, and on our blackened Stygian rivers where the Charon of the coal-wharf plies his trade. I have even heard an apostle of beauty defend those tattered monuments of commercial effrontery and theatrical competition our advertisement hoardings covered with vari-coloured posters, as, in certain lights, becoming transfigured so as to rival the tints of a Japanese fan. The glow, the light fades, and with it such momentary exaltations of spirit; the north-east wind succeeds the south-west, and there being no dignity of form or beauty of proportion in our streets and public places they are apt to look more sordid and miserable than before. It is one thing to point out accidental beauties in the midst of monstrosities,—jewels on dung-hills, as it were,—and quite another to defend the monstrosities for the sake of accidental beauties. Ours would, indeed, be a hard lot if the sun never shone or the seasons did not return. Grace and spirit of movement may, indeed, be shown by a child dancing to the strains of a barrel-organ in a squalid smoky street, but one would rather see her on a village green dancing to a shepherd's pipe. We should aim at a condition of things which would not keep beauty at a distance from common life, or on the footing of an occasional visitor. No artist should be satisfied with such a cold relationship.

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* A paper by Mr. Walter Crane, read at the meeting of the Architectural Association on the 18th inst., as elsewhere mentioned.

If we believe that art is not the mere toy of wealth, or the superficial bedisenment of fashion, not a revolving kaleidoscope of dead styles, but, in its true sense, the spontaneous expression of the delight in life, and the aspiration of a free people, before all things, then, in order that art may express itself in this way, it is necessary that there should be something like a common life. We have no common life, because we have no life in common. Art is split up into cliques as society into classes. Art should know neither. We want a vernacular in art, a consentaneousness of thought and feeling throughout society,—not mere formal or verbal agreement, or dead level of uniformity, but,—comprehending and harmonising individual variety with collective unity, which can only be developed among a people intellectually, politically, and socially free.

The signs of our times point unmistakably to great changes working in the direction I have indicated, which cannot fail to produce corresponding results in art.

Consider, for instance, the probable effect on domestic architecture of a collective, communistic mode of living. Instead of our rows and rows of brick boxes, only varied by piles of them in barracks, there would probably be a demand for quite another type of dwelling. We might see something like a revival or a development of the plan of house which for so many ages proved so serviceable to humanity, from Homer to the end of the Middle Ages. The great hall as the common living-room, with smaller ones for sleep or study connected with it. At all events, buildings of such a type, and groups, would certainly lead to more dignity of result in architecture than the houses built under the influence of our complex and artificial life, and under our present systems of tenure, are ever likely to do. We all know that a church gives higher opportunities to an architect than a private house, yet the Gothic church is but the survival of the Gothic hall. It was a secular form before it was sacred.

Then, too, the only chance for the mural painter and monumental sculptor is in public buildings. If buildings of the type I have mentioned became common, there would be plenty of scope and work for them, and the decorative artists generally; and so we might reasonably expect that painting and the sister arts would be restored to, perhaps, greater than their former dignity, beauty, and invention.

The decline of art corresponds with its conversion into portable forms of private property, used as material for commercial speculation. Its spirit and aims under such influences naturally become entirely different. All really great works of art are public works, monumental, collective, generic: expressing the ideas of a race, a community, a united people, not the ideas of a class. It is evident enough in our own time that art needs some higher inspiration than that of the cash-box. She suffers from an intellectual lethargy that cannot be cured by a prescription from the cheque-book. These are, at best, but stimulants that force an unhealthy excitement,—a feverish and fitful activity at the expense of the whole system. Private patronage may be able to command a measure both of skill and beauty, no doubt; but it is, as a rule, beauty of a lesser kind, and conceived in a narrower spirit, because, being addressed rather to the personal tastes and preferences of an individual, it is less likely to call forth the full expression of an artist's mind. While the fancies of rich and great persons, when their day is past, often come to be looked upon as curiosities, the art of a people as expressed in their public buildings and monuments, possesses a kind of immortality. We know the splendid results in art which grow on the rock of Athens and the cities of Mediæval Italy. Our own cathedrals, too, bear witness to the greater solemnity and impressiveness, as well as vitality, of public and co-operate art. Is it too much to suppose, seeing the intimate connexion between political and social condition and artistic expression, and how both are affected by economical laws, that in the free federated communes which, not improbably, will, in the future, succeed jealous nationalities dominated by centralised governments, with a large increase of leisure and opportunity for cultivation and enjoyment, the arts will reach a higher and fuller development than any the world has known?

Hence comes it that most of the present efforts made to revive the arts and crafts among the people, without reference to their economic condition, are like so many attempts to grow the tree leaves downwards; or as if an architect should put up an elaborate scaffolding and begin with his roof before he had decided on the ground plan, dug the foundations, or thought of the drainage.

Real progress we must not expect to make until we have re-established the unity of the arts,—a very different thing from uniformity. My friend Mr. Sedding, in a discourse read awhile ago, in his generous enthusiasm was for assigning, in his mind's eye, the mural decoration of an ideal modern cathedral to various well-known popular painters. I believe even I myself was allowed a corner to amuse the children in. I have as great an admiration for the talents of my contemporaries as any one, but I cannot conceal from myself that to let us all loose on the wall in this kind of way with no greater preparation for dwelling together in unity, in the artistic sense, than is afforded under the conditions of the modern picture-show would be a very doubtful experiment. It would be, metaphorically speaking, something like an attempt to anticipate the millennium by trying to persuade the lion to lie down with the lamb, or the cow and the bear to feed, in the same cage. But in the fifteenth century Mr. Sedding would have been safe enough. Architecture comprehended, as it should do, all the arts. The painter worked in harmony with the carver and metal-worker, because each probably had a considerable knowledge of the other's craft, as well as of the limitations of his own. Artists, therefore, knew what they wanted to do, and did it. There was nothing mysterious in this, taking into account the way in which men worked in those days, and learned their crafts; but it is a little depressing to think, with all our superiority in exact science and mechanism, how far we are from anything like certainty in art.

Whether the interest of scientific discovery and research has had anything to do with diverting men's faculty of invention into another channel, and life does not allow time for the exercise of both, I do not pretend to say; but when Science and Art touch each other with the tips of their fingers,—when Science, for instance, asks for the aid of Art in mounting electric lights, or in order to fit any mechanical invention in daily use, it is very noticeable how artistic adroitness of adaptation, applied so as to secure a logical and beautiful result, lags behind the scientific invention. It is as if Science, continually creating new systems of nerves and ganglia in working order, was hard put to it to find bodies or frames to fit them, to make them presentable to humanity.

No doubt the demands upon a designer in the present day, owing to the march of mechanical invention, are very heavy; but the commercial pressure and hurry which is greatly answerable for that are heavier still upon him. Thought is all-powerful, but there is no time to think. Fancy and imagination might play about the humblest accessory, but there is no time to play; and "all work," as well as the uncertainty of work,—"and no play," as the saw saith, "makes Jack," if not "a dull," certainly an anxious boy.

But depend upon it, in conditions fair to humanity, art wants but little encouragement, —only freedom and sympathy. The seed will grow fast enough in a favourable soil and climate, and bring forth flower and fruit after its kind in due season.

For art is in its highest sense the faculty of expression, the language of life. The richer, the fuller the life, the happier and more harmonious its conditions, the more varied and beautful will be the forms of its outcome in art.

But it is deep down in the life of the people that we must dig the foundations, and out of common speech and common labour and handicraft must be shaped the stones of this architecture of art. Without such foundations, and without the cement of fellowship; without due recognition of the equality and unity of all workers, and their mutual interdependence in building the great structure, we shall raise no enduring monument to be a delight to ourselves, and a memorial of us to those that come after. Brilliant toys, it may be, we shall have; surprises and stimulants; joyless elaboration, and pedantic weight of learning; gorgeous exotics; flowers and fruits forced for the jaded appetite of a society in its decline; but we must give up all hope of vital and harmonious art, enshrined in a casket of beautiful architecture.

PROFESSOR MIDDLETON ON THE EARLY DEVELOPMENT OF MEDIÆVAL SCULPTURE.

ROYAL ACADEMY OF ARTS.

Professor Middleton delivered the first of two lectures on Mediæval sculpture on Monday evening at the Royal Academy. He commenced by remarking that by the beginning of the fourth century, in the reign of Constantine, the art of sculpture had reached the lowest possible stage of degradation. That was due to the fact that men had gone on, with failing technical skill and rapid loss of any true feeling for beauty, copying and copying again,—each generation of sculptors growing feebler than the one before it,—till at last they could only produce work that was hopelessly dull in design and brutally coarse in execution. Nothing was more depressing than the sculpture of that period. The early sculpture of the Greeks in the seventh century B.C. was, perhaps, ruder and even uglier in form, but in their works there was a distinct promise of something better, a sort of dim foreshadowing of the glorious era that was to come. Even the rudest work of the savage had usually some spark of original design, and, consequently, some degree of life and vigour; but in the Roman sculpture of the fourth century there was nothing to redeem its hopeless, heavy stupidity. It was this exceedingly debased form of Classical art that the early Christians adopted, and though they possessed no superior technical skill or knowledge of the human form, yet the mere fact that their subjects were inspired by a real living faith gave a value and vigour to their reliefs which was far beyond anything Pagan of the same time. In sculpture, as in painting, whatever art the early Christians had was purely Classical in style; and though completely new sets of motives were introduced, yet the older influence clung closely to all their conceptions and their methods of treating them. In that respect the contrast was very strong between the earliest Christian art,—that of Rome, as seen in the Catacombs,—and that of the next stage of the art of sculpture, that which was developed at Byzantium after Constantine's removal of the seat of empire. No gloomy subjects were introduced by the early Christian artist; Christ was never represented in suffering nor as threatening a coming judgment. The catacomb subjects were always scenes exemplifying His friendly power, His miracles, and His beneficence. His passion and sufferings were only hinted at by Old Testament scenes, which were taken as anti-types. This cheerful spirit was inherited from the older faith, in which terrors of Hell had practically little part. It was very different from the mental state shown in the later art of Byzantium, which seemed to be overshadowed by a gloomy sense of the fabled horrors of the Christian Hell. Instead of the beautiful Classical symbolical rendering of the mystery of death and the soul by a butterfly escaped from its dead chrysalis body,—a notion invented by the Greeks, and adopted by the Pagan Romans,—instead of this, we found death associated with such things as grinning skeletons and hideous fiends hovering round the dying man, ready to dispute with the angels the possession of his escaping soul. The earliest Christian art was imbued with the Classical love of the beautiful, and with an evident wish to avoid the horrible. In another respect, too, it offered the widest possible contrast to the art of Byzantine times, in which Christ and sacred scenes were represented so as to be as unlike as possible to anything in the earlier art of Greece or Rome. The Early Christians, on the contrary, adopted as much as possible the artistic conceptions of their contemporary pagans. Christ was represented by them like the Greek Orpheus, wearing the Phrygian cap and holding the *pedum*, surrounded by a crowd of listening animals, or riding in triumph into Jerusalem with a face of the most exquisite youthful beauty. The art of this earliest Christian period spread over a space of about two hundred years or more, and owing to its close connexion with the contemporary Pagan art (in which a rapid decadence was going on) we found that the earlier the example the better it was, both in design and execution. The finest early Christian work was in ivory and wood; skill in these smaller branches of plastic art lingered long after large sculpture was very coarse and poor, as was often the way with the minor arts, as might be seen in Roman coins and gems, and in gold and silver work. The removal of the capital of the Roman Empire to Byzantium changed the whole character of art. Byzantine art was essentially ascetic, and strongly opposed to that of Classic times. What spirituality there was in Greek art was in the main such as could be expressed in the outward form, and there was no suggestion of those purely spiritual gifts and excellences which could exist more fully in a less perfectly constructed body. In the earliest Christian art this intimate connexion of outward and inward graces was still insisted on; but with the development of the Oriental ascetic form of Christianity a wholly different class of ideas came in. The moral and spiritual qualities became the essential ones: the body and its earthly perfection became not only subordinate, but was regarded as an obstacle to the higher gifts. Art was called upon to illustrate the inner life of the soul, unconnected with its earthly tabernacle. The chief Christian virtues had no necessary connexion with nobility of face or strength of limb,—any bodily beauty was an unimportant accident. The Greek god was necessarily strong and beautiful, but the Christian saints warred against the powers of Evil with the help of bodily emaciation and privations which were destructive to physical beauty, and thus the notions of ugliness and sanctity became most intimately connected in the monkish mind. The great struggles and victories of the Christian saints involved mental anguish and bodily pain, which were utterly foreign to the serene well-balanced state of mind and body in the Hellenic god or hero The old tranquil spirit was gone, and life was made gloomy by coming shadows of judgment and hell, with its legions of hideous fiends,—malignant in expression and loathsome in form. These spiritual fears and trials and struggles of man could in no way be adequately expressed in sculpture, and hence for a long time painting and mosaic took the prominent place which in earlier times had been occupied by the plastic art. The sufferings of Christ, the Crucifixion, and subjects of that kind were unsuited to an art like sculpture, which called for harmonious beauty, quiet dignity, and restraint of expression. For a long time the Church struggled hard to limit the use of art to decorative ornament, and strove to prohibit the representation, by painting or sculpture, of sacred persons or scenes. This struggle, fostered by the ascetic Oriental spirit which had then come over the church, lasted for a very long time. Ultimately, a compromise was made, and representations of sacred scenes and personages were permitted, but only with the stipulation that Christ and the saints should be depicted without any of the sensual beauty which had glorified the gods of Greece and Rome. A rigid set of dogmatic rules was framed by the ecclesiastical powers as to the way in which each saint or scene should be represented, and these rules prescribed the arrangement of the drapery, the colours to be used, &c. Thus it happened that what should have been the highest branches of Byzantine art were petrified into a monotonous formalism, which, as years went on, became deficient in vigour of drawing and devoid of individual spirit. The result was the inevitable degradation which always followed on repeated copyism. Owing to this practice of repetition it was often very difficult to guess the date of a work of art from internal evidence. The practice of this petrified art was still going on in the monasteries and churches of Greece and Russia.

THE ARCHITECTURAL ASSOCIATION.

THE ninth meeting of this Association for the present session was held on Friday, the 18th inst., at 9, Conduit-street, Mr. J. A. Gotch (President) in the chair.

The following new members were elected, viz., Messrs. E. J. Baker, G. Westrup, A. E. Toms, L. W. Todd, H. J. Curley, W. Hynam, H. F. Clark, and H. C. Fitt.

The Chairman intimated that a special business meeting of the Association would be held on the 4th of March, for the purpose of making an alteration in Rule 3, by inserting the words "and periodical publication," after the words "special classes."

A letter was read from Sir Frederick Abel, on behalf of the Prince of Wales, inviting the co-operation of the members in favour of the Imperial Institute. The Chairman stated that the Committee would be happy to receive any subscriptions, and to duly forward them.

A vote of thanks was passed to Mr. T. A. Walters, architect of the Roman Catholic Church of the Sacred Heart, Wimbledon, for accompanying the members over the building the other afternoon, as mentioned in our last.

It was announced that a visit would take place this Saturday, the 26th inst., to Sion College and to St. George's Cathedral new schools, when the architect of the latter building, Mr. Leonard Stokes, will accompany the members. Several other forthcoming visits were also notified, for particulars of which see our advertisement columns.

A letter was read from Mr. Thos. Blashill, thanking the members for their kindly expressions at the last meeting in connexion with his appointment as Superintending Architect to the Metropolitan Board of Works.

The Hon. Librarian announced several donations to the library, cordial votes of thanks being passed to the givers.

Mr. Walter Crane then read a paper entitled "The Architecture of Art," which we print *in extenso* in other columns of this week's *Builder*.

Of the discussion which followed we postpone our report.

Illustrations.

MARBLE CHIMNEY-PIECE, CHÂTEAU DE FONTAINEBLEAU.

THE marble chimney-piece here represented adorns the guard-room of the château. It measures 5m. 3c. in height, and 4m. in width. It is made up partly of fragments of a celebrated chimney-piece called *la belle cheminée*, which stood in a room fitted up by Louis XV. as a theatre, in 1725. It was rebuilt in 1835 by King Louis Philippe, who largely contributed to the restoration of the château. It is in consequence of this that the monogram LP may be observed engraved in the frieze, in a cartouche between two Cupids and surmounted by the Royal crown. The *belle cheminée* was the work of Matthieu Jacquet,* who undertook it by order of Henry IV., in 1594, and took five years to complete it. The two standing figures, symbolical of Strength and Peace, are attributed to Pierre de Franceville, or Franqueville, a Flemish sculptor, who was born at Cambray in 1540, died at Paris about 1615, and is frequently designated "de Francavilla." He appears to have been assisted in the work by his pupil and son-in-law, Francesco Bordoni. These two statues are part of the *belle cheminée*, and so is the greater part of the ornament which surrounds the bust of Henry IV. On the older chimney-piece was an equestrian statue, in blue marble, of this king, also executed by Jacquet, and which is at present to be seen on the chimney-piece of the Salle St. Louis. The bas-relief representing the battle of Ivry, which accompanied it, was removed to the museum of the Louvre.

UPPER PART OF CMIMNEY-PIECE, ETC., IN THE PALAIS DE JUSTICE, BRUGES.

THIS chimney-piece was erected after the designs and under the directions of Lancelot Blondell. The chimney-piece proper is of black Dinant marble, and was carved in 1529 by Guyot de Beaugrant. It consists of an entablature resting on two jambs in the form of pillars, the bases of which are Flamboyant in style. The alabaster frieze is decorated with four bas-reliefs illustrating the story of Susanna, designed and carved by the same artist, who also executed the four Cupids at the corners and the alabaster moulding under the statues. The wooden upper part (1529-31) was doubtless erected as a trophy to commemorate the victory of Pavia, February 24th, 1525, and the Treaty of Madrid, January 16th, 1526, confirmed by that of Cambray, called the "Paix des Dames," August 9th, 1529, one of the articles of which released Flanders from all subjection to France and recognised its independence. This portion is divided into three compartments; the centre is occupied by the statue of Charles V. as Count of Flanders, holding the insignia of the Order of the Golden Fleece. The coat of arms of the county adorns the front of his cuirass. He holds up a naked sword in his right hand, and in the left carries an orb surmounted by a cross, while behind him is a throne decorated with half-length portraits of his father and mother, Philippe le Beau and Jeanne la Folle. On the back of the seat are carved two portraits in medallions, one of Charles de Launay, the conqueror of Pavia, to whom Francis I. returned his sword; and the other of Margaret of Austria, the aunt of the Emperor, who, by negotiating the Treaty of Cambray, consolidated the power acquired by that victory. Two pillars support the pediment. The tympanum of the archivolt is occupied by two winged Cupids, holding laurel crowns. Over the pediment is an escutcheon containing the imperial arms surrounded by the collar of the Golden Fleece, and surmounted by a helmet with festoons, on which is the imperial crown with the Gallic cock for a crest in sign of victory. On each side of the throne are the pillars of Hercules, with the arms of the various States under the dominion of Charles, those of Naples and Navarre, the two latest acquisitions, being the most distant from the statue. Farther off are sixteen escutcheons with the arms of the Emperor's grandparents. On the pilasters at the salient angles two groups of boys support medallions with profile portraits of Francis I. and Eleanor of Austria, the Emperor's sister, whose marriage ratified the treaty. In front of the compartment to the right of the Emperor are placed the statues of Maximilian and Marie of Burgundy, his paternal grandparents, and in front of that, to the left, those of Ferdinand of Arragon and Isabella of Castille, his maternal grandparents, surrounded by escutcheons and streamers. Among the accessory ornaments may be observed, to the right, the Cross of Burgundy, with the flint and steel surrounded by flakes of fire and the motto of Maximilian, "Halt Mas." To the left is the bow and sheath of arrows, the emblem adopted by Ferdinand and Isabella to symbolise the union of the kingdoms of the Peninsula. The five statues were carved by Guyot de Beaugrant, the details by seventeen other sculptors, the chief of whom were Roger de Smet, Herman Glosencamp, Jacques Crépen, and Adrien Rasch. The whole was without doubt meant to be coloured, and the empty cartouches to receive inscriptions. The admirably-conceived design of the monument reveals exquisite feeling and a profound study of the subject. The more one examines the arrangement of the details the more one is struck with the poetic feeling of the author. Everything is in its right place and in perfect harmony. The forms are those of the Renaissance period. It is a trophy erected in honour of Charles V. and entirely Pagan in its conception. The execution of all the details is perfect, and testifies to the great skill of the Flemish sculptors of that period.

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* Matthieu Jacquet, born at Fontainebleau about 1550, died in 1610. He was a pupil and coadjutor of his father, Jacquet of Limoges.

ST. SAVIOUR'S UNION INFIRMARY, CHAMPION HILL.

This infirmary has just been completed, and will shortly be opened. It is situated in East Dulwich-grove, near the Champion-hill station on the London and Brighton Railway, and is for the sick poor of the parishes of St. Saviour and St. George-the-Martyr, Southwark, and St. Mary, Newington, which three parishes constitute the St. Saviour's Union. The buildings stand on a piece of ground about seven acres in extent, having a frontage of 700 ft. towards East Dulwich-grove.

The sick wards are arranged as shown on the block plan, with their axes placed north and south, the main front of the building, shown in the illustration, facing East Dulwich-grove. Accommodation is afforded for about 732 inmates. There are twenty-four large wards, to hold from twenty-six to thirty beds each, and twenty-four separation wards for two beds each, for cases which require isolation. The open balconies at the ends of the wards are large enough to allow of three or four patients being wheeled in their beds on to them. The warming of the wards is partly provided for by two double open fireplaces in the centre, with descending flues carried through the floors, and by fresh air brought from the outside through zinc tubes to the backs of the fires, where it is warmed before passing into the wards. In addition to these fireplaces there are two rows of hot-water pipes down each side of the ward. Gratings under each bed, with sliding traps, admit fresh air, which in winter is warmed as it passes over the hot pipes.

There are six three-light gas pendants in each ward, having enamelled iron hoods which direct the products of combustion, and also the vitiated air from the wards, into tubes placed transversely above the ceilings. Each end of these is open to the air, and has a balanced flap, which closes at whichever end there is an inward pressure of air, leaving the other end open to allow of the egress of the heated air. The wards have glazed brick skirtings, 3 in. high, all round, and the floors will be waxed. The water-closets at the ends of the wards have Omer D. Ward's ;" Household" closets, with water-waste preventing cisterns. The baths are of porcelain, and are detached from the walls, with a space of a few inches between them and the floor. The floors of the bath-rooms, water-closets, and lobbies, are paved with red tiles. There is a dado of glazed bricks, in cream and brown bands, round the walls. The lavatories in the bath-rooms were supplied by Messrs. Finch & Co., of Holborn. Cannon's hot-water radiators are placed in the bath-rooms, lobbies, and water-closets. Each of the ward blocks has an hydraulic bed lift, and two hand-power lifts for food, &c., manufactured by Messrs. Clark, Bunnett, & Co., of Deptford.

Advantage has been taken of a fall in the ground from west to east to construct the end block (marked D), with a basement story, of open piers and arches, allowing a free circulation of the air beneath the ground floor.

The connecting corridors between the administrative block and the several ward blocks are 9 ft. wide. They are at the ground, first, and second floor levels. The ground-floor corridors are enclosed, but have large windows, the sashes of which will open. The first-floor corridors are open, with an arcading at the sides to support the floor of the corridor over. The piers and arches of this arcade are of ornamental cement concrete, specially manufactured by the Imperial Stone Company, East Greenwich. The floors of the corridors are paved with asphalte. On the ground floors they have a border, on each side, of red tiles, about 2 ft. wide. The corridor on the ground floor of the administrative block is paved with ornamental tiles.

Beneath the ground-floor corridors are lower ones, partly underground, extending from the coal-cellars to the ward blocks. In these are placed the gas, water, and steam mains, where they are more easily accessible than if they had been buried in the ground. There is also a tramway, of 20-in. gauge, for trolleys to convey coals, &c. By this means not only will a great saving of labour be effected, but the dirt and inconvenience arising from the passage of dirty clothes, coals, &c., through the building will be avoided.

The administrative block is central. A view of the front of it forms one of our illustrations. The west wing is the medical superintendent's house. It is connected with the main corridor on the ground-floor only. The east wing contains the committee-room, with bedrooms over for the matron, assistant matron, head nurses, &c. In the central portion of this block are situated various offices for the superintendent, clerks, and stewards, and matrons' sitting-rooms. Over these is the chapel. It is 70 ft. long, 28 ft. wide, and 28 ft. high to the apex of the ceiling, which is of plaster, wagon-shaped, and with ornamental wooden principals. There is a panelled dado of painted wood, 4 ft. high, round the walls. The west wing at the rear of the administrative block contains the stores on the ground-floor, and in the east wing are the nurses' mess and day rooms. The basement, which extends under the centre and the two wings, contains extensive cellarage for beer, coals, &c., and larders. The kitchen is in the centre at the rear of the administrative block, on the ground-floor level. The cooking apparatus consists of four large steamers, a Warrenizer, two gas roasting-ovens, and gas hot-plates, soup and tea coppers, vegetable steamers, open range, &c. Bedrooms for about seventy nurses and servants are placed on the first and second floors of the east and west wings at the rear of the administrative block; these bedrooms are entirely detached from the main block. Communication with it is provided in case of fire by light iron bridges on the second floor.

The laundry buildings consist of an officers' wash-house, 25 ft. long, 16 ft. wide, with laundry, 25 ft. by 21 ft. The patients' wash-house is 40 ft. long, 25 ft. wide. Adjoining it is a double drying-closet, containing thirty-two horses; and beyond is the laundry, 53 ft. long, 25 ft. wide; there is also a small wash-house for foul linen. Attached to each of the patients' wash-houses is a room for receiving the dirty clothes, and a delivery-room. Attached to each of the laundries are airing-rooms for the clothes. The steam washing-machines, wringers, and calendering machine, steam mangles, &c., were manufactured by Messrs. Clements, Jeakes, & Co., of Great Russell-street, Bloomsbury, who also supplied the cooking apparatus.

The Boiler House adjoins the laundries. There are three "Lancashire" steam boilers, each 26 ft. long and 6 ft. 6 in. diameter. The chimney-shaft is about 70 ft. high; it is octagonal, 5 ft. diameter at the top, and stands on a base 7 ft. square. There are two of Marshall's horizontal engines, 12-h.p. each. Hot water is laid on to all wash-up and slop-sinks, and to lavatory basins, the supply being obtained for them from Dudley steam water-heaters, which are placed in specially-constructed chambers under each ward-block, the steam being conveyed to the heaters from the boilers in pipes placed in the subways; the steam-pipes are coated with asbestos.

The water-supply will be obtained from an artesian well, sunk by Messrs. Baker & Sons 200 ft. into the chalk which underlies the site at a depth of 90 ft. from the surface. The water will be pumped from the well into cisterns at various parts of the building, and also into two large cast-iron tanks, holding 8,000 gallons each, which are placed in the towers of the administrative block, to form a reserved supply of water for use in case of fire. Hydrants are placed in all the wards and on the landings of the stairs adjoining them, also in the corridors of the administrative block.

The drains have been laid in straight lines, with manholes at intervals for access and for admitting fresh air where practicable. The foul air from the main sewers in the streets is cut off by Kenon's intercepting traps and ventilated manholes. There is a flushing-tank at the head of the main drain at the back of the building. All the soil-pipes are fixed outside of the buildings, and to insure a constant circulation of air in them they are open at the top and at the feet, just above the traps into which they discharge. The waste-pipes from baths, sinks, &c., discharge over open trapped receivers, and are carried above the eaves of the roofs, with open ends.

The receiving wards are situated close to the entrance-gates in front of the building. They contain two wards,—one for males and one for females, — with attendants' rooms, clothes-stores, bath-rooms. There are also two padded rooms lined with indiarubber padding supplied by Messrs. Pocock & Co.

The porter's lodge adjoins the entrance-gates, and contains an office, parlour, and bedrooms for the porter.

Blenheim telephones are fitted in the medical superintendent's house, the centre of each floor of ward blocks, and at various other points in the building.

Externally the walls are faced with Leicester red bricks with dressings of Ancaster stone; there is a wrought-iron railing along the front towards East Dulwich-grove.

The contracts for the building, the engineers' work, and the laying out of the grounds, have been carried out by Messrs. Kirk & Randall, of Woolwich, at a total of about 86,000*l*.

The gasfitter's work was executed by Mr. Clarke, of Moorgate-street, City, at a cost of 1,063*l*.

Mr. Davis has acted as clerk of works, and Messrs. H. Jarvis & Son are the architects.

ST. JOHN'S CHURCH, WELLINGTON-ROAD, RHYL.

This new church is erected on a corner site at the junction of River-street and Wellington-road, Rhyl.

The design has been ruled by the conditions under which the church had to be built, the site being broad in proportion to its length. The design was selected in a limited competition, the instructions to the competing architects being that the church was to be designed for a large congregation with the least possible obstruction by columns, &c. On plan the church is a parallelogram, 77 ft. by 57 ft., with a west-end bay and side aisles, the centre portion of the church being carried up in an octagonal form by arches springing from the main walls, the western bay being supported by two massive granite columns. The chancel, 30 ft. by 26 ft. in prolongation eastwardly of the western bay, opens into the nave by a massive stone arch. The organ-chamber, 19 ft. by 12 ft., is arranged on the south front, with choir and clergy vestries on the north elevation. Spacious porches are arranged at the west end.

Accommodation is provided for about 750 sittings.

The material used for walls is local limestone with Groespyr stone dressings.

The roofs are covered with green slates, and internally are of open-timber work in pitch-pine. The floors are of wood-block paving.

The cost of the edifice, complete, will be about 5,000*l*., and it is intended to consecrate it early in the summer.

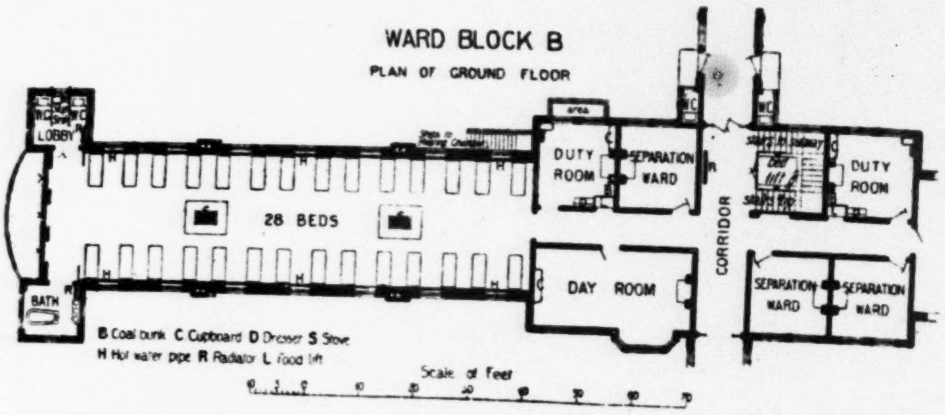
Mr. A. Torkington, of Rhyl, was the contractor. Mr. W. Webb acted as clerk of works, the architect being Mr. David Walker, of Dale-street, Liverpool.

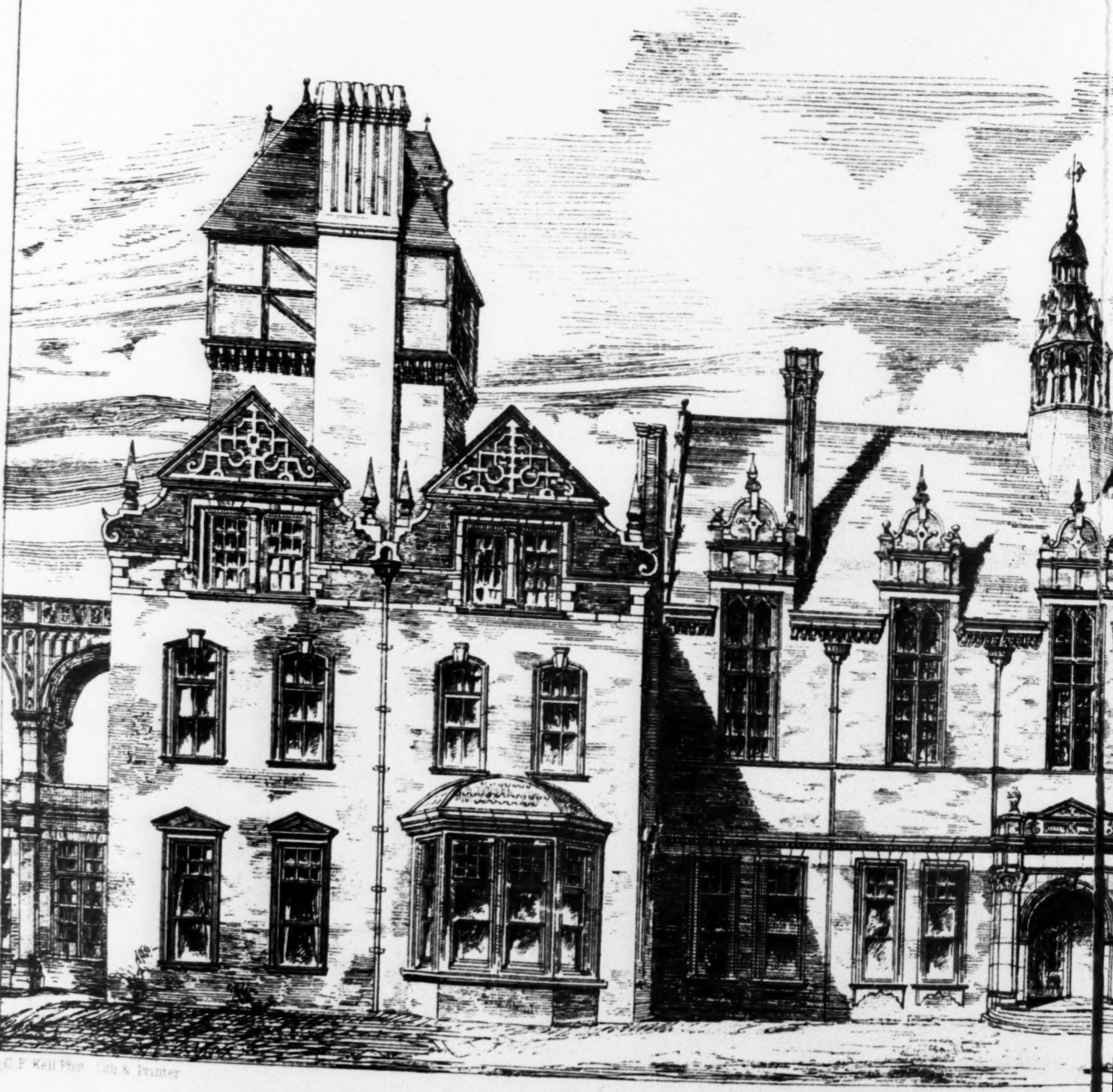
COMPETITIVE DESIGN FOR ST. PAUL'S CHURCH, KENSINGTON.

This is a design lately submitted in a limited competition for the above church. It was proposed to erect the church in red brick and terra cotta. The drawing is by the architect, Mr. R. A. Briggs, A.R.I.B.A., of Devonshire-square, Bishopsgate-street.

Free Lectures on Matters Connected with Building.—Under the auspices of the Worshipful Company of Carpenters, the following course of lectures has been arranged for delivery at Carpenters' Hall, London-wall:—Wednesday, March 2, Mr. Banister Fletcher, F.R.I.B.A., Warden of the Company, on "English Carpenters and Foreign Competition"; March 9, Professor A. B. W. Kennedy, M.I.C.E., on "Girders and Beams"; March 16, Mr. F. Chambers, F.R.I.B.A., on "Joinery"; March 23, Mr. Lacy W. Ridge, F.R.I.B.A., on "Half-Timbered Houses"; March 30, Professor T. Roger Smith, F.R.I.B.A., on "Bricks and Brickwork"; and April 6, Professor A. H. Church, M.A., on "Wood,—its Chemistry, its Decay, and its Preservation." Admission will be by ticket, to be obtained at the Hall, and at all the large builders'; also of the Secretaries of the Royal Institute of British Architects, and the Architectural Association, 9, Conduit-street, W., and at the Architectural Museum, Tufton-street, Westminster. The lectures will commence at 8 p.m.

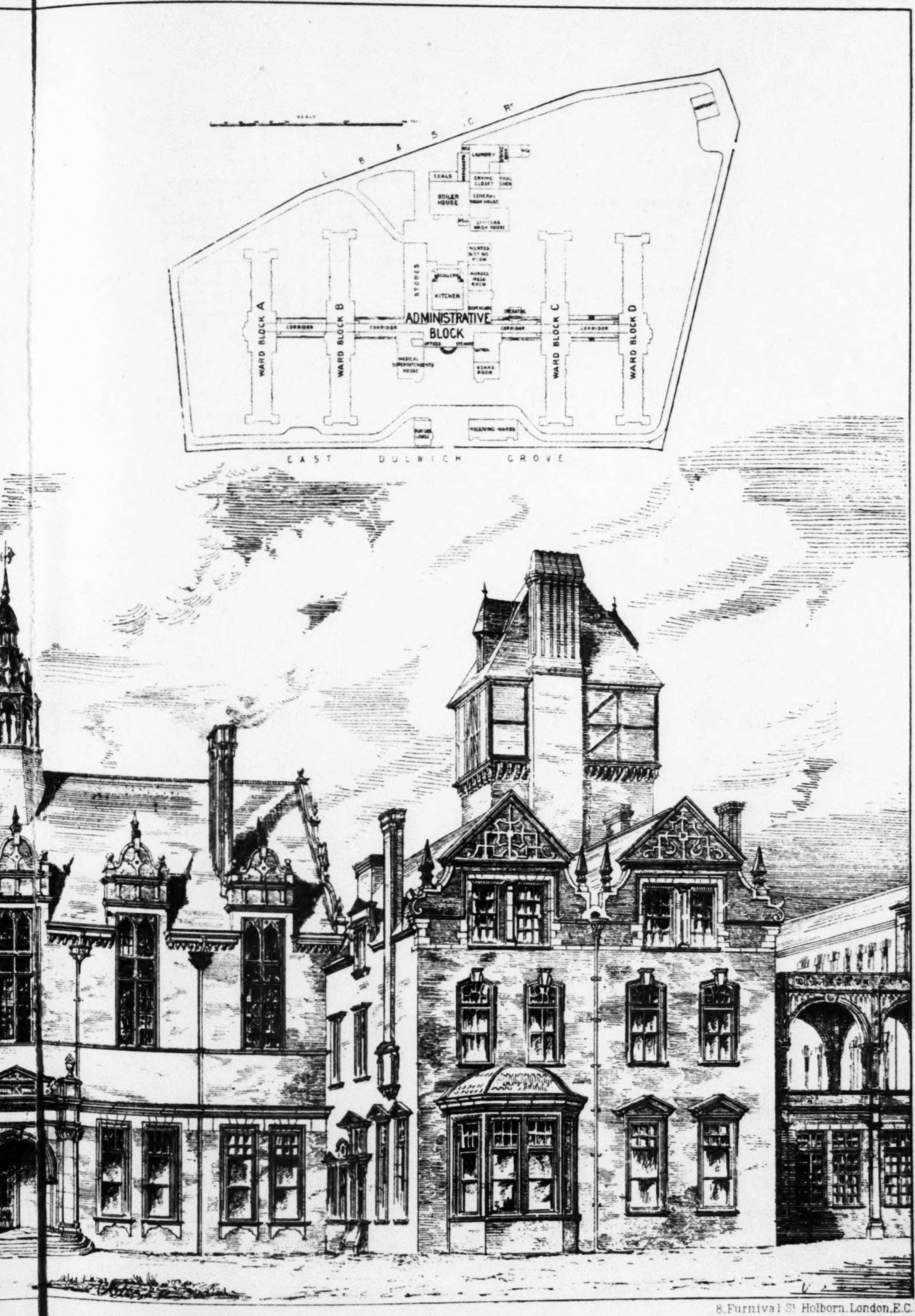
Fareham Cemetery Competition.—Mr. Albert L. Guy, High-street, Lewisham, has been appointed Architect to the Fareham Burial Board, Hants, from among thirty competitors for the erection of cemetery chapels, lodge, mortuary, &c.


WARD BLOCK B
PLAN OF GROUND FLOOR
LOBBY
BATH
28 BEDS
DUTY ROOM
SEPARATION WARD
CORRIDOR
DAY ROOM
DUTY ROOM
SEPARATION WARD
SEPARATION WARD
B Coal bunk C Cupboard D Dresser S Stove
H Hot water pipe R Radiator L Food lift
Scale of Feet



C. F. Kell Phot. Lith & Printer

ST SAVIOUR'S UNION INFIRMARY, CHAMPION HILL.—ADMINI


SCALE
L B & S C Rʸ
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COALS
DRYING CLOSET
FOUL LINEN
BOILER HOUSE
GENERAL WASH HOUSE
OFFICERS WASH HOUSE
NURSES SITTING ROOM
NURSES MESS ROOM
STORES
SCULLERY
KITCHEN
WARD BLOCK A
WARD BLOCK B
WARD BLOCK C
WARD BLOCK D
CORRIDOR
CORRIDOR
CORRIDOR
CORRIDOR
ADMINISTRATIVE BLOCK
OFFICES
STEWARD
MEDICAL SUPERINTENDENTS HOUSE
BOARD ROOM
PORTERS LODGE
RECEIVING WARDS
EAST DULWICH GROVE

8, Furnival Sᵗ Holborn, London, E.C.

MINISTRATIVE BLOCK. — Messrs. Henry Jarvis and Son, Architects.

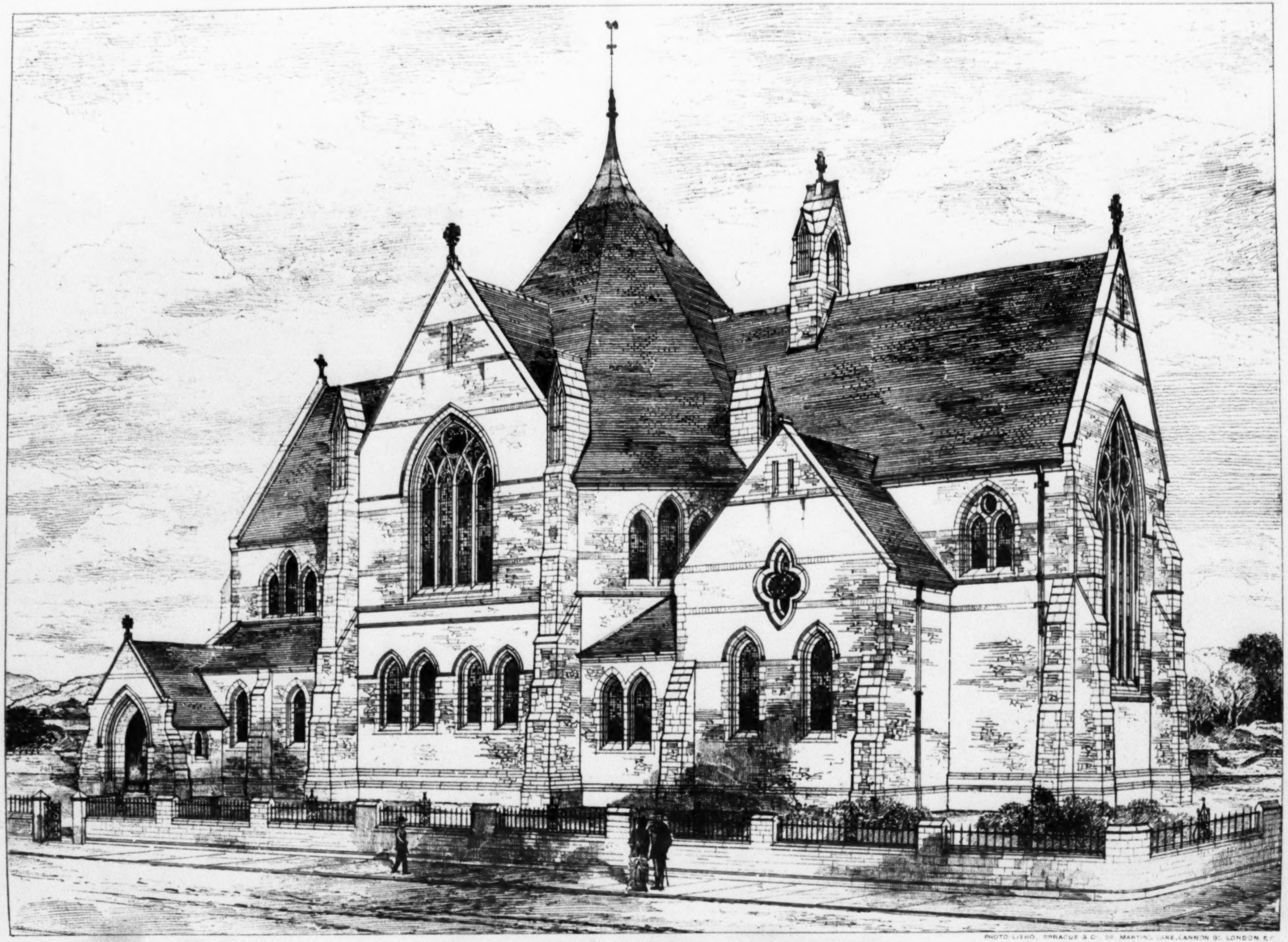
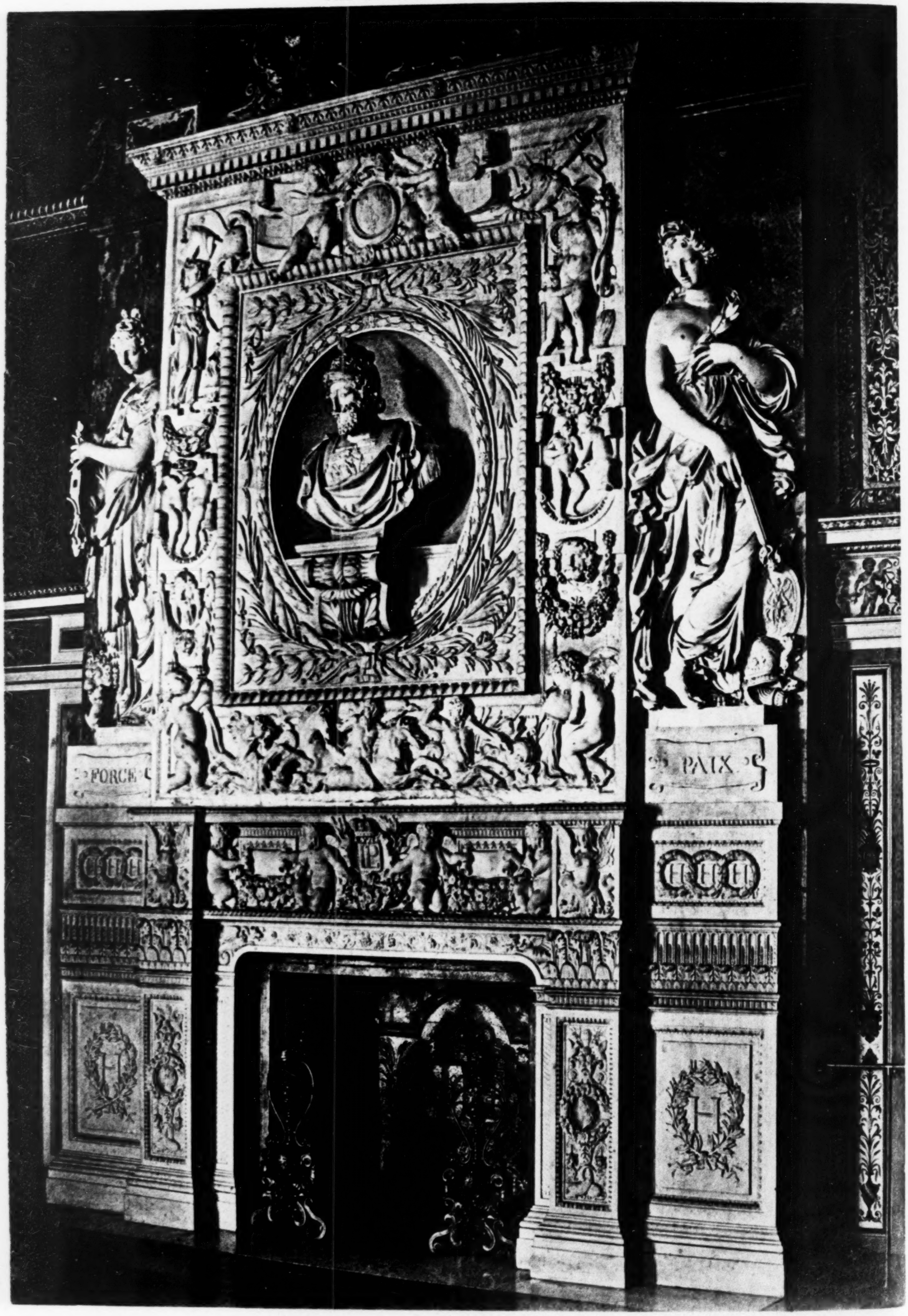


PHOTO-LITHO, SPRAGUE & Cº 22, MARTINS LANE, CANNON ST LONDON E.C.

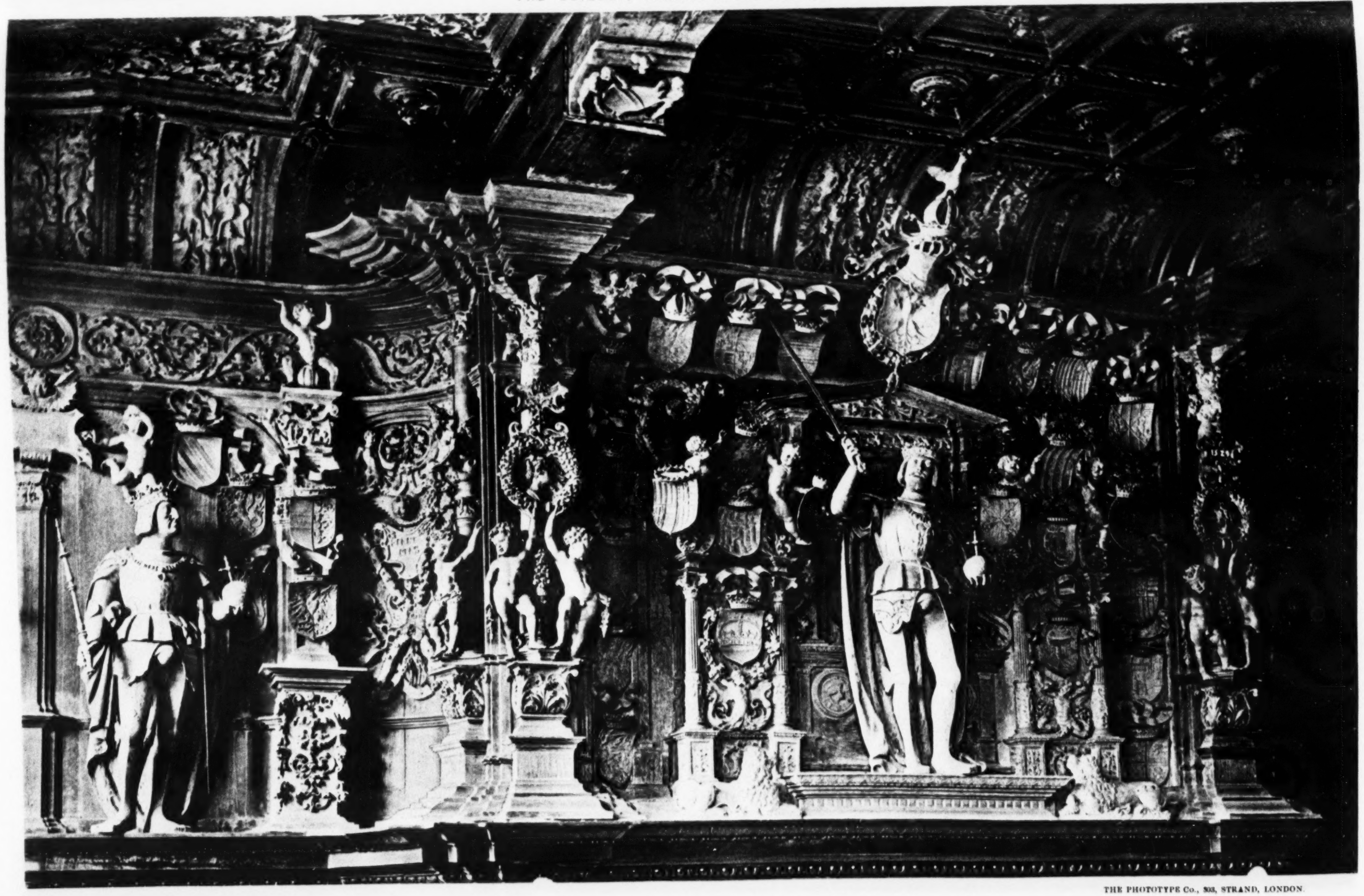
CHURCH OF ST. JOHN, RHYL.—MR. DAVID WALKER, ARCHITECT.

CHURCH OF ST. JOHN, RHYL.—Mr. David Walker, Architect.



THE PHOTOTYPE Co., 303, STRAND, LONDON

MARBLE CHIMNEY PIECE IN THE PALACE OF FONTAINEBLEAU.



THE PHOTOTYPE Co., 303, STRAND, LONDON.

UPPER PART OF CHIMNEY PIECE Etc. IN THE PALAIS DE JUSTICE, BRUGES.

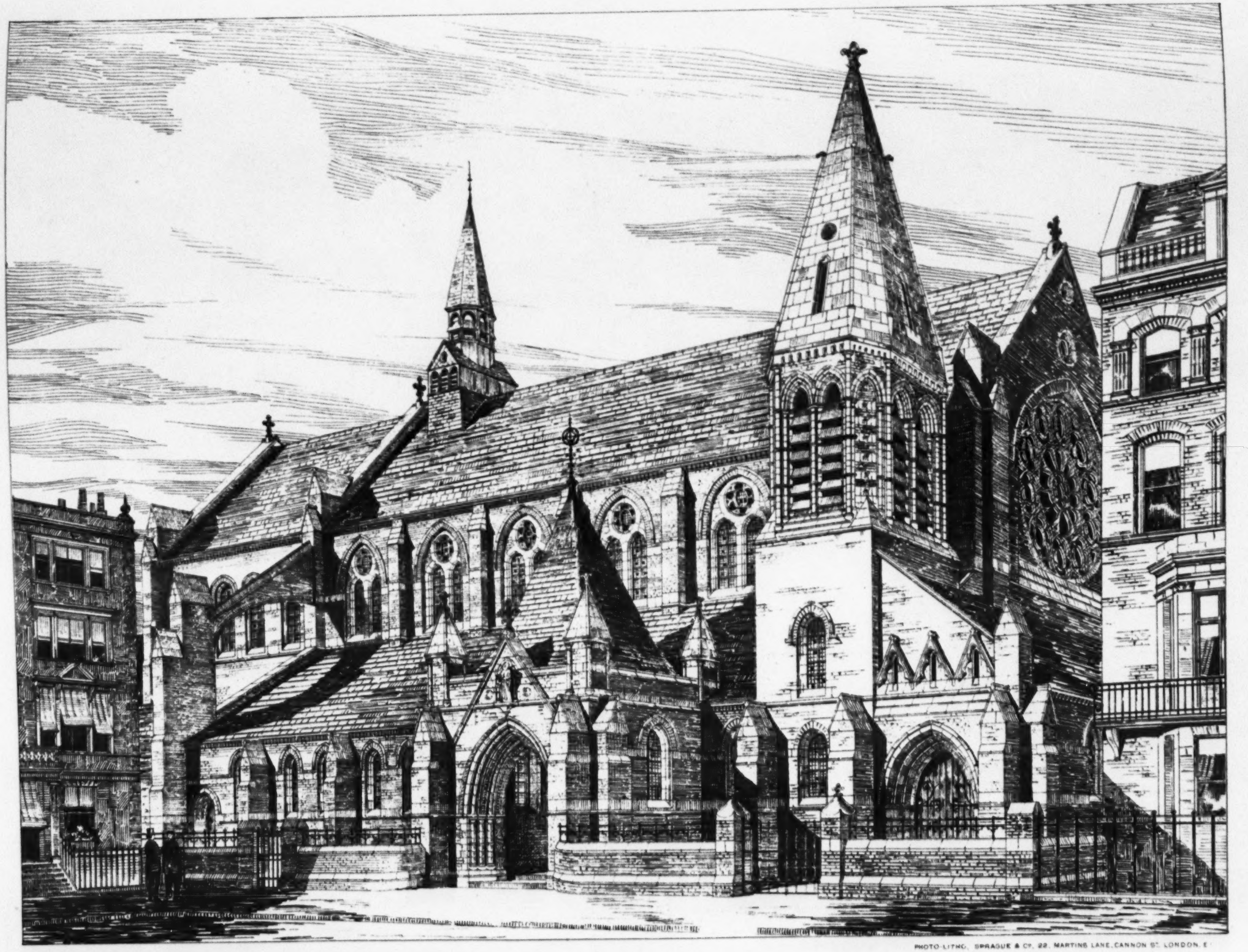
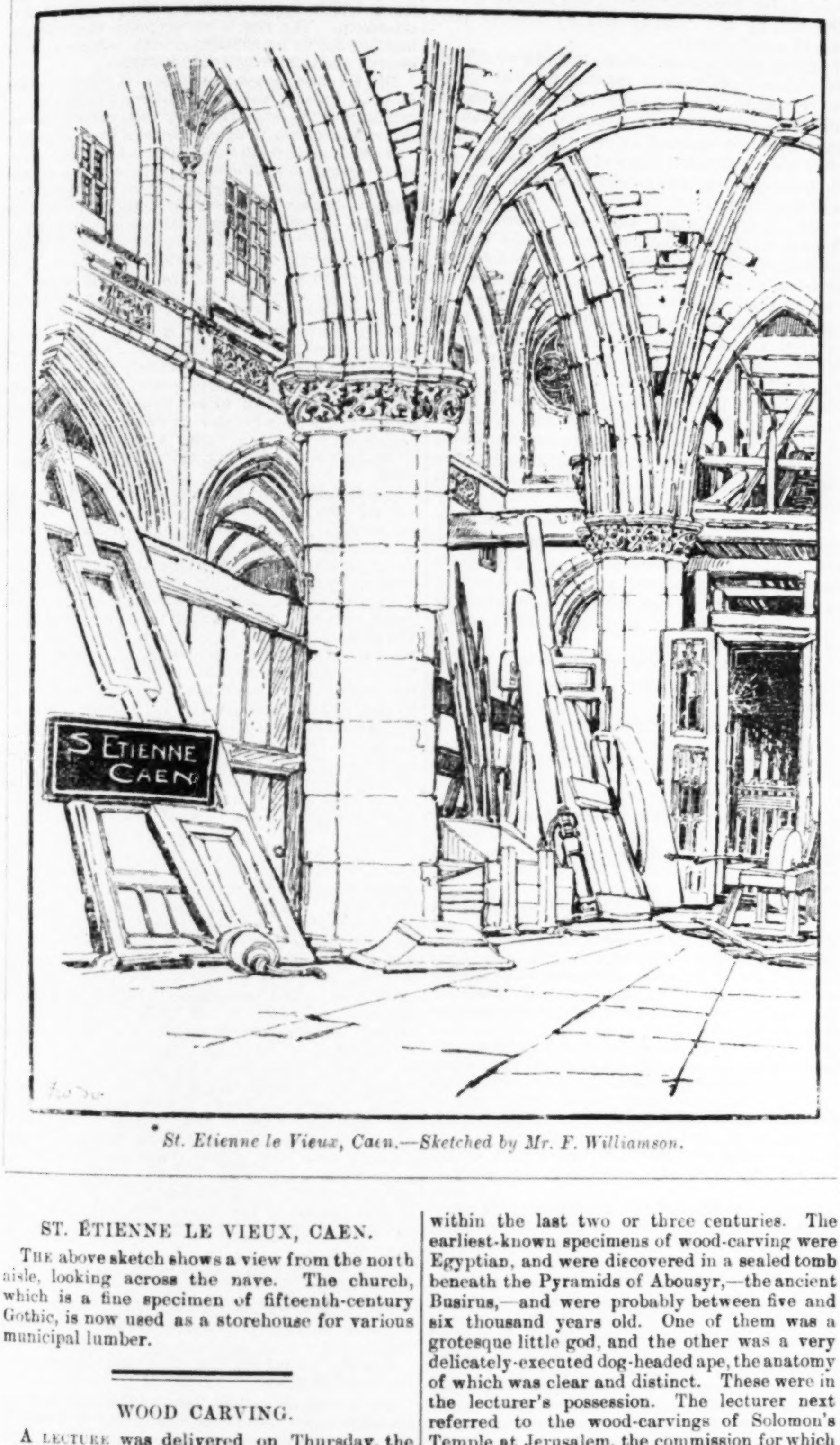


PHOTO-LITHO. SPRAGUE & Cº. 22, MARTINS LANE, CANNON Sᵀ. LONDON, E.

DESIGN FOR ST. PAUL'S CHURCH, KENSINGTON: BY MR. R. A. BRIGGS, ARCHITECT.



St. Etienne le Vieux, Caen.—Sketched by Mr. F. Williamson.

ST. ÉTIENNE LE VIEUX, CAEN.

The above sketch shows a view from the north aisle, looking across the nave. The church, which is a fine specimen of fifteenth-century Gothic, is now used as a storehouse for various municipal lumber.

WOOD CARVING.

A lecture was delivered on Thursday, the 17th inst., before the members of the Society for the Encouragement of the Fine Arts, No. 9, Conduit-street, by Mr. G. A. Rogers, on "Wood Carving." There was a good attendance of ladies and gentlemen.

Mr. George Godwin, F.R.S., presided, and in introducing the lecturer said that Mr. Rogers came of an artistic family. Probably some in that room remembered, as he did, his father, who came to be called "Grinling Gibbons Rogers," and who produced some very fine work. The lecturer's brother, Harry Rogers, was a very clever designer, and died too young. His sister, Miss Rogers, had shown her information and taste and talent in some works on art in Palestine.

Mr. Rogers, in the course of his lecture, the full title of which was "A Slight Outline of the History of Wood Carving," said that the art had, unfortunately, very little recorded history. It was not easy to account for this, for in all ages when wood-carving was mentioned at all it was mentioned with admiration. But however much the works themselves had been admired and appreciated, the names of the executants had not been handed down to posterity except in very rare instances. Carvers seemed never to have thought of signing works by carving their names or cyphers on them until within the last two or three centuries. The earliest-known specimens of wood-carving were Egyptian, and were discovered in a sealed tomb beneath the Pyramids of Abousyr,—the ancient Busirus,—and were probably between five and six thousand years old. One of them was a grotesque little god, and the other was a very delicately-executed dog-headed ape, the anatomy of which was clear and distinct. These were in the lecturer's possession. The lecturer next referred to the wood-carvings of Solomon's Temple at Jerusalem, the commission for which was, according to the Biblical record, given to a man of Tyre, who was skilful to work in stone and wood, but whose name was not mentioned, although, curiously enough, we were carefully informed of the name, and even as to the parentage, of the brassworker employed. In the time of Pericles all the most celebrated sculptors in marble and bronze worked also in wood, choosing cedar, cypress, and ebony as their chief materials. All the Oriental countries, no doubt, had much work for the wood sculptors to do, but perhaps the Persians, who had always been renowned for the decorative arts, were amongst the most advanced. With the spread of Christianity, and the consequent building of churches and cathedrals all over Europe, wood-carving received much encouragement, and itinerant bands of wood-carvers found much employment. They were very probably the designers of much of the work they executed. Having entered a protest against the denudation of our cathedrals and churches of their wood-carving,—evidence of which was afforded by the fine collection of wood-carvings of the late Mr. Cottingham, and by other collections,—Mr. Rogers remarked that much had been done by such men as Shaw, Carter, Wyatt, Twopenny, the Chairman (Mr. Godwin), and others, to register, by drawings and descriptions, the old wood-carving extant in this country, but no society had organised a thorough investigation. The period of the Renaissance found many carvers of talent ready to carry out the designs and instructions of the new leaders of art. Amongst the most conspicuous for ability amongst the Italian wood-carvers was Barili. Donatello also worked in wood, though very rarely, but what he did was superb. In Germany the great name of Albert Dürer was supreme, not so much because of his own actual handiwork, as by reason of the influence he exerted over the carvers of his time. France, especially in the southern districts, produced a grand display of Renaissance work. Spain was a little later. The Elizabethan and Jacobean era constituted a strongly-marked period in English wood-carving, which culminated in the advent of Grinling Gibbons, who was born in Spur-alley, a little turning leading out of the Strand (and now improved into Craven-street) in the year 1648. He was "discovered" by Evelyn in 1671. There were many critics who, while admiring the wonderful handicraftsmanship of Gibbons, considered his taste in design almost vulgar, and his large groups, and pendants and garlands of fruit and flowers, in questionable taste. But it should be remembered that the taste of the period was for rather pronounced decoration, probably brought about by Rubens and his contemporary artists, in whose paintings we saw heavy bunches and garlands of flowers and not too-ethereal angelettes. Gibbons was not free to work out his own fancies, but had to follow the fashion of the times. Every now and then, however, he reverted to what was perhaps his own particular taste in carving,—portraits in medallion in half-relief, carved in boxwood or pear-tree-wood, or copies from paintings or engravings. These were the works he executed when he wished to make a present to some valued friend or patron. In conventional scroll-work he effected a material change and a vast improvement, infusing into it a little of the Italian spirit, but still keeping the stalks thick enough to support the conventional leafage, which the Italians did not. He introduced some of this scroll-work into nearly everything he did. Gibbons died at his house in Bow-street in 1721. Having mentioned and briefly described some of the principal works of this master, and condemned the way in which some of the finest of them had had their finer lines choked up by the house-painter (under the mistaken notion that paint prevented the ravages of insects, instead of merely hiding them), the lecturer went on to refer to the works of Chippendale and his coadjutors, who were, however, more of cabinet-makers than wood-carvers. He then glanced at the works of wood-carvers on the Continent co-æval with the work of Gibbons and his successors, and passed on to mention the work of his father, Mr. William Gibbs Rogers, who was born in Dover in 1792, and for whom it was claimed that he had probably done more than any one else to foster the art of wood-carving in this country during the present century. In conclusion, the lecturer offered some suggestions for the encouragement of wood-carving in England. He denied that the art had died out in this country, contending that much good work, never seen by the critics, was produced every year. What he considered was wanted was a Hall of Wood-carving, in a central position in London, where carvers could send for exhibition the works they had executed, if only for a few days. If such a hall or place of exhibition were established it would not be many months before erroneous impressions as to the capabilities of modern carvers would be removed. Such a hall he should like to see managed by the wood-carvers of the metropolis. There was already in existence a small society, with a library and a small collection of specimens. That might form the nucleus of the proposed new institution, which, as it would show what could be done by English carvers, would prevent work from going out of the country. Mr. Rogers said he intended to move further in this matter later on, when he had seen how his proposals were received.

We may add that the lecture was an exceedingly interesting one, and we regret that the great pressure on our space just now has obliged us to give only a brief summary of it.

In opening the discussion,

The Chairman said he was sure they must all feel very much obliged to Mr. Rogers for the interesting sketch that he had given them of the history of wood-carving. He believed, however, that Mr. Rogers must be wrong in thinking that Grinling Gibbons carried on wood-carving for his own amusement, having some other means of living. Considering the enormous amount of his work in England, he must have given, not a portion, but the whole of his time, if only to the direction of it. He did not know whether any of them had seen an interesting collection of his work in St. James's Church, Piccadilly, restored some years ago. There was also a figure of King James at the back of Parliament-street, said to be by Gibbons. He did not know whether this was quite certain, but it had been stated positively to be his. As to the exhibition of modern work,—the "Hall of Carving" would be a very interesting thing if it could be carried out, but he was afraid one great difficulty would be found in the way, viz., that the carvers themselves would not send their works. In truth, a great deal of work was done under one name which was executed by other persons. He had found, on many occasions, that the masters would not give the names of those who executed the work. They gave a very good reason for that, which was, that these men would be marked, and that they would lose them. And that, he thought, would be one of the great difficulties in the way of the proposed exhibition. However, he, for one, would be very glad to do anything in the direction Mr. Rogers had pointed out. He was afraid there was, at present, very little encouragement for wood-carvers, and he did not find, from the many inquiries he had made that week, in view of the fact that he should have to appear before the meeting that evening, that there were many good wood-carvers to be had. He found that if any work was wanted in a hurry, and good men to do it, there was great difficulty in obtaining them. Moreover, there were few designers. Now, in another direction,—by a public institution in which he was interested, some very handsome premiums were offered for designs to commemorate this Jubilee Year. Nothing had yet been decided upon, but he was sorry to say the result was very unsatisfactory. The specimens were anything but good, and the number small,—only a dozen. The fact was, it took a long time to make a carver, and the public were not willing to pay the price for work of that description; they were not willing to pay a price that would encourage men to devote themselves to it. He was one of the earliest and one of the staunchest friends of the system introduced at South Kensington, but seeing what he did every week, knowing that more than 600 schools and classes of art were at work all over the country, that the Government paid 26,000*l.* a year towards Schools of Art alone, that there were from thirty to forty thousand students in those schools, one was forced to ask whether the result of that teaching had been what they had a right to expect (applause). What was the cause of it? He had no doubt the teaching apparatus there was perfect, and that good men were employed, but surely by this time there should have been a genius or two manufactured (applause). Most certainly it was not so, and he found in every direction the impression that there was a want of designers. He would not occupy their time or take off from their memory what Mr. Rogers had said to them, but he hoped some good would follow from the lecture. There was a great deal of wasted writing power and talking power in this country. These lectures went on and people said: "Yes, very interesting; we hope to see such and such a state of things," but no effort was made. The daily press were too much occupied with other matters; the lectures were reported in the technical journals, which the outside public took care not to read (laughter); and so things went on year after year and nothing was done. He hoped some little interest would spring out of that meeting, and that those who had the time might do something to aid the progress of wood-carving in England (applause).

Mr. W. Cave Thomas remarked that he did not know that there was much encouragement given to wood-carvers in this country. If they went into foreign churches, they would see there figures in an artistic sense which could only have been produced by wood-carvers who had been educated as artists. The wood-carving they saw was developed in ancient times, when the art was encouraged by the noble and the rich. Now they began at the bottom end, by schools for wood-carving. They must begin at the top, by the demand, and by demand they would get the supply.

Mr. G. C. Haité said that students at schools of art, or "students of art" as they delighted to call themselves, having learned drawing, all wanted to become artists; that was to say, they all wanted to paint pictures, as if that were the only form of art. He objected to wood-carving being termed a minor art; it was applied art.

Mr. Loftus Brock said that the British Archæological Association would gladly receive and carefully examine at their meetings any articles of antique art, and if Mr. Rogers or any of his friends would be kind enough to send a series of wood-carvings, they would be inspected with pleasure, and he and many of his friends would be happy to do all they could to further the progress of this noble art. Referring to the wood-carving in some London churches, he observed that those who examined it must have been struck with the way in which the stiff, formal lines of the architecture were relieved by the graceful execution of the wood-carving.

The lecturer, replying to a remark made by the chairman, said he had not intended to convey the impression that Grinling Gibbons was an amateur, and not a professional carver. It was only up to the time when he was discovered by Evelyn at Deptford that he spoke of him as an amateur.

Votes of thanks were then passed to the lecturer and the chairman, and the proceedings terminated.

MR. WATERHOUSE'S REPORT ON THE EDINBURGH COMPETITION.

The following is the text of the report of Mr. Waterhouse, R.A., on the designs submitted in the competition for the proposed Municipal Buildings:—

"No. 20, New Cavendish-street, Portland-place, W.
14th February, 1887.
To the Hon. the Lord Provost of Edinburgh.

My Lord,—The task with which you have honoured me of acting as the professional adviser of the Corporation in the matter of your Municipal Buildings competition, I have found to be one of no ordinary difficulty.

In the first place, the majority of the designs sent in are of greater merit than is usual in such cases, so as somewhat to perplex me by the choice at my disposal. There are some ten or twelve sets of drawings out of the fifty-six, any of which would, I believe, if realised in stone, be a credit to their authors, and a conspicuous ornament even among the many which already contribute to the beauty of your city.

Secondly, the fact of the competitors themselves being left to form their own idea of the amount of money which might be expended on the building has led many of them to indulge in dreams of magnificence which, had you fixed a limit, would doubtless not have been hazarded. As no limit was assigned, I have not thought myself at liberty to exclude any design on the question of cost, though, in making this report, I have, of course, taken it, *cæteris paribus*, into due consideration.

I may here say that, speaking generally, it will be necessary not to place too much reliance on the authors' estimates of their designs; for whereas one may think his work can be executed for an average of 8½d. per cubic foot, the surveyors of another competitor, for very much the same class of work, value his design at 1s. 9¼d. per cubic foot.

The total estimates vary from 66,000*l.* to 280,000*l.*, and the number of cubic feet where given (which is not always the case) from 1,747,588 to 3,776,486, proving, I think, that a different system of measurement has been adopted in different cases.

Thirdly, the absence of perspective views has made it difficult, even to a professional eye, to judge accurately of the effect of a building on the distribution of whose masses so much depends. I am aware that the admission of perspective views in competition has been much abused; but drawings in outline only, from a given point, would have materially assisted in the solution of this problem. The printed schedules of accommodation, giving the required areas of each room, which each competitor has had to fill up with the actual areas supplied by his design, have proved very useful, showing at a glance the quantity of accommodation given, though, of course, not its quality.

The greater number of designs show one or more towers or domes, some of the former rising to a very considerable elevation. Though, no doubt, in the majority of cases, those features add materially to the beauty of the building in itself, it becomes a question whether, on this particular site, it is desirable to introduce what would render the very beautiful view of your cathedral, as seen from Princes-street, an insignificant object.

The intrinsic beauty of those features in themselves may, in one or two cases, overbalance this fear; but it appears to me worthy of grave consideration. The site is no ordinary one, and the building has to be considered with reference to its historic and picturesque surroundings.

By far the greater number of designs have followed broadly the main features of the present buildings as to plan,—that is to say, placing in the centre a large quadrangle. Some of them surround this quadrangle with buildings on all sides, whilst others open it out to the south, with merely a screen, as at present, between the courtyard and the street. The plans which have followed this general scheme may also be subdivided into those which have their east and west rooms well lighted by looking into the wide quadrangle, and those which make them face the surrounding closes on the opposite sides, of which there is no security against the buildings being raised even higher than they are at present.

Some competitors, though putting their rooms looking outwards,—an arrangement which has, of course, the advantage of materially shortening the length of their corridors of communication,—have taken the precaution to set back their east and west frontages to a greater or less extent, so as to permanently secure a better supply of light and air to their rooms looking outwards in those directions.

The one most marked exception to the foregoing general arrangement is supplied by the design numbered 11, under motto 'Light and Air.' This is cruciform on plan, slightly recessed from High-street, and has two wings connected with the main building by covered bridges, under which Warriston-close and Allan's-close are carried towards High-street, somewhat diverted from their present courses. The authors certainly justify, in a very remarkable degree, the motto they have adopted. Every room has the maximum amount of light and air, while the corridors and staircases are exceptionally well lighted, and there would also be, I think, quite an exceptional elegance about their colonnaded central area and staircases. Though bare of ornament and monotonous in its fenestration, the exterior maintains the same horizontal lines in every part, and is not without dignity, while the circular ends, north and south, give grace to what otherwise would be too severe. The disposition of the plan would produce fine masses of light and shade among the blocks of building when seen in perspective. No towers rise above the roofs to compete with that of St. Giles's, and the treatment of the steps of Warriston-close, sweeping round with their high retaining walls till they touch the building, would add considerably to the general effect. In point of cost, the design is without a rival considering it excellences, and I have reason to believe its author's estimate of 75,886*l.* is not likely to be much exceeded; while their scheme admits of the retention of the block of buildings at the north-west corner of the site. These and other considerations would induce me to give 'Light and Air' the highest place. I regret, however, to have to point out that the south-west wing is so placed as not merely to divert the close from its present line (that might possibly have been allowed), but also to close up some of the windows and doors at present existing on the west side of Warriston-close. I feel, therefore, in justice to the other competitors, I cannot, on this account, recommend their design for one of the prizes.

After mature deliberation, therefore, I have come to the conclusion to recommend:—

No. 5, 'Edina Classica,' for the first prize.

No. 7, 'Nineteenth Century,' for the second prize; and

No. 40, 'In my Defence' (with heraldic device), for the third prize.

No. 5, principally from its very admirable plan and elevation towards Cockburn-street (the execution of the design is beyond all praise, but that does not influence my choice); No. 7, principally from the beauty of its details, and its elevations generally, especially that towards Cockburn-street; and No. 40, principally from its general excellence of plan, refinement of details, and moderate cost.

In recommending these designs for the awards, I am painfully aware how nearly several others, some of whose merits I have had the pleasure of personally calling your attention to (though it was probably unnecessary to have done so), equal these in general excellence, and, it may be, are their superiors in some isolated respects; but, so far as I can judge, after a lengthy consideration, the balance is in favour of the three designs I have mentioned.

I cannot quite pass over in silence another design,—No. 29 (crescent moon in shield),—which is a clever attempt to make your present building give you the greater part of the scheduled accommodation by adding a new north-west wing and additions to the east and west of the quadrangle; while some amelioration is given to the bareness of the north front by high-pitched roofs and well-designed chimneys. This scheme leaves some of the existing buildings on the site untouched. I do not think that the fact of its retaining so much of the present municipal offices puts No. 29 entirely out of the competition; but the omission of the Clydesdale Bank from his scheme, I think, does do so, though it is true that the author leaves unoccupied space on which it could be erected. Having alluded to this design, I ought to point out that, having kept the old buildings, it obliges the author to assign to some of the principal officers apartments which would only be from 9 ft. to 10 ft. high.—I am, my Lord, your faithful servant,

Alfred Waterhouse."

PROVIDENT INSTITUTION OF BUILDERS' FOREMEN AND CLERKS OF WORKS.

ANNUAL DINNER.

The annual dinner of this excellent and old-established, but not sufficiently well-known, Institution, was held in the Venetian Saloon of the Holborn Restaurant on Saturday evening last, under the presidency of Mr. Ex-Sheriff George Burt, J.P. (late of the firm of Mowlem, Burt, & Freeman), who was supported by a large number of the members and others interested in the well-being of the Institution. The usual loyal and patriotic toasts having been disposed of (Mr. George Burt., jun., responding on behalf of the "Army, Navy, and Volunteers,")

The Chairman (Mr. Ex-Sheriff Burt) proposed the toast of the evening, "Success to the Provident Institution of Builders' Foremen and Clerks of Works." He expressed his satisfaction at presiding over such a large gathering, from which he hoped that much good would accrue to what was a very noble Institution; for it was one which not only promoted self-help amongst its members, but it afforded help to those who could not help themselves. But he thought it was very desirable to impress upon the members the need of getting others to join them, because in these days of competition every man, in the building trades especially, had to stand upright in his own shoes, and, while doing his honest best for himself, he ought to endeavour to make some provision for his own old age or for those whom he might leave behind him. Such provision he would be enabled to make by joining the Provident Institution of Builders' Foremen and Clerks of Works. He should like to see a great increase in the number of members, for of late there had been some falling off in that respect. Founded in 1842, the Institution had now been in existence for forty-five years, and it still possessed considerable funded property, so that its benefits might, with mutual advantage, be extended over a much larger number of members than it at present had on its roll. Since its establishment it had, he found, paid upwards of 6,000*l.* in pensions and funeral grants; and during the last year the amount disbursed was 253*l.* 10s. In short, the Institution was one well worthy of the support of the building trade, and of builders' foremen and clerks of works in particular. He regretted the absence, through indisposition, of the respected Governor of the Institution (Mr. George Plucknett), and Mr. Howard Colls had written expressing regret at inability to be present, but enclosing a subscription. In conclusion, the Chairman, after remarking that the Institution seemed to include in its ranks the *élite* of the classes for whom it was intended, the Chairman gave the toast, coupled with the name of Mr. J. W. H. Bedford, the Corresponding Secretary.

The toast was very heartily received, and Mr. Bedford, in responding, referred to the account of the work done by the Institution, as set forth in the last annual report.

Mr. J. Merrifield, the Financial Secretary, proposed "The Health of the Governor of the Institution, George Plucknett, Esq.," and expressed his great regret, which he knew was shared by all present, at Mr. Plucknett's absence. He had rendered very valuable services to the Institution, and they all wished him long life and happiness.

Mr. G. Groome, in an entertaining speech, proposed "The Donors and Honorary Subscribers," coupled with the name of Mr. Thomas Stirling, who briefly replied.

Mr. W. Horwood proposed "The Trustees" (Mr. G. Plucknett, F.S.A., Mr. P. C. Hardwick, F.S.A., Mr. W. Scrivener, and Mr. F. J. Dove), coupled with the name of Mr. Scrivener, who replied, urging the members to make renewed efforts to extend the good work of the Institution.

The Chairman, in felicitous terms, proposed "The Architects,"—for whom, unfortunately, there was no one present to reply.

The other toasts were "The Builders," proposed by Mr. Ben. Turner, and replied to by Mr. George Burt, jun.; "The Visitors," proposed by Mr. Stapleton and replied to by Mr. Scott Moncrieff, C.E.; "The Press," proposed by Mr. Thomas Stirling and coupled with the name of our representative; "The Directors and Officers of the Institution," proposed by the Chairman and coupled with the name of Mr. Groome; and "The Chairman."

During the evening subscriptions and donations to the funds of the Institution amounting to upwards of sixty guineas (including twenty-one guineas from the Chairman and fifteen guineas from Messrs. John Mowlem & Co.) were announced, although no appeal was made for funds.

It may be added that the offices of the Institution are at No. 9, Conduit-street, Regent-street, where meetings are held on the first and third Wednesdays in every month at 8·30 p.m. Inquiries on those evenings, or letters addressed to the Corresponding Secretary, Mr. Bedford, will elicit further particulars as to the working of the Institution.

THE LIVERPOOL CATHEDRAL COMPETITION.

Sir,—In order to correct the misapprehension which appears to exist as to the motives for exhibiting the Liverpool Cathedral designs in London, it can hardly be wrong to inform you that Mr. Christian, in a letter to Mr. J. O. Scott, has written that he has "no objection whatever to the exhibition of the drawings in London provided only my report is with them." He does not, of course, agree to the memorial asking for it after the resolution of the Council of the R.I.B.A. last week, yet it is obvious he does not flinch from the ordeal; and why, then, should the Institute, if it be considered that he has made any judgment at all? And if none other than that of his summary, viz.,—"There is a further and larger question that must be faced, and that is whether in any of the designs can be found the church of the future most suitable for the Cathedral of Liverpool," *à fortiori* there can be no objection to the exhibition proposed, whatever may be the private opinions of the promoters, or by whomsoever the original suggestion of it may have been made.

John P. Seddon.

1, *Queen Anne's Gate*, Feb. 24.

⁂ We insert the foregoing as a matter of personal explanation, but we regret to find that there continues to be any inclination to doubt the finality of Mr. Christian's report.

A JUDGE'S RULING AS TO PAYMENT FOR QUANTITIES.

Sir,—Will you kindly allow us to ask, through the medium of your valuable journal, the advice and, as far as possible, the co-operation of our brother architects and quantity surveyors, in defending a principle in which we believe all who supply quantities are interested?

Our case is this. We have been summoned in the Swansea County-court by a builder who has carried out some work under us, for the return of 50*l.*, being monies paid us by him some time since for quantities, together with other items for lithography, &c., charged for at the rate of 2½ per cent., he contending that he was not liable to pay, and ought not to have paid for such quantities. His reasons for this are immaterial, as the judge ruled that he was liable to pay for the quantities, which had been prepared with the knowledge and approval of the Building Committee of the work in question, and who were aware of the charges, which were specified in the quantities in the usual way.

The Judge, however, added that he considered the charges made for quantities were too high, and that he thought 20*l.* sufficient payment for the whole. His verdict was, therefore, that we should repay the plaintiff the sum of 30*l.*, together with all costs.

We believe your readers will at once see the effect this decision will have upon the profession; as, if such is the law,—and such it is until the verdict is upset by a Superior Court,—architects and surveyors cannot demand a greater payment for quantities than about three-quarters per cent., while they are at the mercy of any dissatisfied builder who may during the last six years have paid them for quantities at a higher rate than this, and who may choose, from spite or any other cause, to demand the return of the money.

The amount awarded, together with costs, has been paid into Court, and notice of appeal given.

This course will probably involve us in a very considerable outlay, trouble, and anxiety, and we should not have taken it, but have put up with the loss, however hard we may have considered it, had we not felt the principle involved was of so much importance. We trust such of your readers as are of the same opinion will help us to carry on the fight, and that they will at once, as the matter is pressing, communicate with us.

The architects of Swansea sympathise with us, and promise us their active co-operation.

Bucknall & Jennings.

Worcester-place, Swansea,
February 22nd, 1887.

"MASONS' WAGES."

Sir,—I trust you will kindly allow me a small space in your next issue to reply to some of the remarks of your correspondent, "A Quarry Owner" [p. 302, *ante*].

It is not my intention on this occasion to say a word relative to what he said about Society men, except that I do not think anyone could form an idea from my previous letter [p. 266 *ante*] whether I believe in London Society Masons or not.

I do not deny that stone can be worked cheaper at the quarries, but the cause of the cheapness is not far to seek, to a practical man. A quarry owner uses fresh quarried stuff, which is of course soft and unseasoned. It is obvious that be it lime stone, grit stone, or free stone, it should be well seasoned before being wrought; if it is not so it cannot be expected to resist the London atmosphere.

Then, again, there is the fixing of this quarry-worked stuff. Who can know better than the fixer whether it is properly worked or not? My experience is that the cost of fixing is twice what it should be, and the cleaning down much more.

Now, there is another important question connected with this subject. I have seen large quantities of worked stone delivered to the railway station, carted from there to a sub-contracting mason's yard, unloaded, kept there for some time, then reloaded and sent to the job.

Surely, if this system of sub-contracting and re-sub-letting is a genuine business, it would be better to pay the journeyman mason at the quarries a higher rate of wages and waste less in needless cartage, &c.

February 22nd, 1887. G. C. W.

Sir,—Permit me to say a few words in reply to "Quarry Owner" [p. 302, *ante*], or, rather, to ask if architects are not justified in having what many experienced architects specify; that is, to have the stone prepared on the job or in London. For various reasons, too numerous to mention, the proper place to work the stone is under the immediate superintendence of a practical clerk of works, certainly not at the quarries. Again, stone is generally specified to be "selected." Not much chance of this when it is worked at the quarries, and the job standing for stone. It does not require a very lynx-eyed clerk of works to see at a glance if the stone is sub-let. How is it that many clerks of works appear to wink at this system of sub-letting? This is the great evil of slovenly work in any one trade, and a mere get-over-work at the price paid. I think architects and clerks of works would be doing a great justice to all trades and clients to help stop this system of sub-letting work.

G. R. J.

⁂ On this subject we have also received a long letter, signed "Working Mason," but our space being filled before it came to hand, we cannot find room for it. The writer condemns the practice of working stone at the quarries, characterises piece-work and overtime as the "two great degenerators of the working-class," and denies the practicability of a sliding-scale of wages for masons.

PERSHORE ABBEY LANTERN TOWER.

Sir,—May I point out the similarity between the details of Pershore tower (so cleverly shown in the elevation and section you give in the *Builder* for this date) and those of Salisbury Cathedral tower? Those curious oblong quatrefoils are exactly the same in both. The pilaster buttresses between the upper windows finish with weatherings on the north side, and are much more effective than as shown in the elevation you reproduce (I quote from measured details taken some eighteen years ago with Mr. Hawley Lloyd, of Birmingham). Mr. Lloyd was of opinion that the restoration of the pinnacles was injudicious, and I agree with him that they were undoubtedly intended to finish somewhat like the turrets at Leverington, or Stamford, or Chichester, without any spirets. Their outline as restored is of too early a feeling, and their height appears to dwarf the tower. Pershore men call them "table legs." When I first knew the church a part of one of the Norman arches peeped out over the lean-to roof of the fragment of the north transept; the effect was very happy, and lent additional height to the tower; it was unfortunately covered up by a higher roof, for no sufficient reason.

A few miles from Pershore is a noble tower that I had a hand in spoiling—Worcester. Behind the upper canopies were gaunt-looking openings, locally called "the oven mouths." They threw up the canopies boldly; we left them out, and weakened the effect.

At Malvern, these "oven mouths" may be seen in the same position; though they are smaller, the effect is good. The great turrets at Worcester were damaged by widening the bases of the spirets, thus swallowing up the charming little cluster of pinnacles and flying buttresses round them.

In restoration, it is unsafe to indulge in improvements. The old Goths knew what they were about. We copyists do not, always.

W. Lunn.

Southsea, Feb. 19.

"WASH-OUT" *VERSUS* VALVE CLOSETS.

Sir,—In reading your report of the eighth meeting of the Architectural Association [p. 198, *ante*], and the discussion which followed thereon [p. 264, *ante*], I was much struck at the prejudice shown against wash-out water-closets. In fact, to my mind, it appeared that those who spoke in favour of the valve-closet could not have had experience of the "wash-out," fitted up in a proper manner with a syphon cistern giving a full flush, such as are in common use here in Southsea.

The advantages of the wash-out over the valve closet are that it can be procured in glazed earthenware, trap and all; there is no action beneath the seat to corrode or get out of order, and the bottom of the pan will not corrode (as stated by Mr. Smeaton), if only ordinary cleanliness is used, the same as is necessary with any other apparatus.

For my part, as owner of large property fitted up with "wash-outs," I emphatically pronounce them to have proved perfect sanitary closets, and as a practical builder and plumber am certain that I am competent to judge. A. G. GERMAN.

Southsea, Feb. 12th, 1887.

WASTE WATER FOR FLUSHING WATER CLOSETS.

SIR,—In reply to your correspondent [p. 302, *ante*], in reference to the above, permit me to say that there are apparatus in this town for flushing water-closets by using waste-water from slop-stones, sinks, lavatories, down-spouts, surface-water, &c., and which are actuated in a similar manner to the ordinary water-closets generally in use. It may, however, be worked by the foot, the seat, or the door. A much better flush is obtained, which is caused by the large volume of water which may be used each time, and the impetus given to it; the result having a most salutary effect. A saving of forty per cent. on the present mode of construction is obtained.

By the use of this system 2,737*l*. 10s. per annum is saved in the cost of 73,000,000 gallons of town's water, which would be used by every 10,000 closets on the ordinary principle.

Three hundred pounds a year is also saved in reducing the volume of sewage to be treated at the sewage works by 73,000,000 gallons, making a total saving yearly, per 10,000 closets, of 3,037*l*. 10s., exclusive of the saving of forty per cent. on the original cost of closets.

I may also add, for the information of "Health," that any ordinary water-closet can be altered to the system under notice, where the water-rate and other charges would be saved.

The inconvenience caused by the freezing of the water-closet cistern, and the consequent inoperative condition of the water-closet, rendering it unfit for use,—otherwise than to cause a nuisance,—is obviated.

The nuisance referred to as being caused by using the closet when frozen has resulted, in a prolonged frost, in very serious consequences to health.

In conclusion, I may say that the system is causing much interest in this neighbourhood, on account of its simplicity and effectiveness, and in my opinion, it will soon be generally adopted.

I shall be pleased to furnish any further information on the subject, either to your correspondent "Health," or any of your readers.

JAMES T. PEARSON.

Borough Engineer's Office, Burnley, Feb. 23.

WILLESDEN PUBLIC OFFICES COMPETITION.

SIR,—In your criticism of the plans submitted for the Willesden Local Board Offices [p. 301, *ante*], you state that the design "Bonâ Fide" has the Surveyor's office to the south. Permit me to explain that I proposed, as *an alteration*, to face the building to Dunster-gardens, which would then give the Surveyor his north light, and admit of the front building being seen from the main road. But a similar position would be maintained if it faced the Dyne-road by simply reversing the plan. This is clearly shown on the block plan, which escaped your notice.

THE AUTHOR OF THE DESIGN "BONA FIDE."

Feb. 21st.

AUSTRALIAN INTERCOLONIAL RAILWAY COMMUNICTION.

SIR,—Your sanguine anticipation [see "Notes," p. 276, *ante*] of the time when it will be possible to run a *through* train from Perth to Brisbane through the capitals of the Australian Colonies will unfortunately not be realised yet awhile, if ever, as the several Governments have taken careful precautions to thwart such an arrangement by providing each colony with a different gauge (with one important exception) from its neighbours. They are as follows, in geographical order:—Western Australia, 3 ft. 6 in.; South Australia, 3 ft. 6 in. and 5 ft. 3 in.; Victoria, 5 ft. 3 in.; New South Wales, 4 ft. $8\frac{1}{2}$ in. Queensland, 3 ft. 6 in. The exception is of importance, since through South Australia luxuriating in two gauges, and the chief lines round Adelaide being on the 5 ft. 3 in. gauge, the main line connecting Adelaide with the Victorian railways agrees with them as to gauge, and through trains in this one case will be able to run through between Adelaide and Melbourne. This line is just finished, if it be not already opened, and will be used for conveying the English mails to Victoria and New South Wales, and will lessen the present time considerably.

That most stupid of engineering blunders a break of gauge has already become a serious nuisance on the through line between Melbourne and Sydney, and it is, perhaps, not too much to hope that the powers that be in Victoria and New South Wales may before long see their way to reforming it, either by reducing the Victorian gauge or widening the New South Welsh. The latter would be the better, as it would cost a little less, and would provide ampler cylinder-space in future engines, which will be found of great value as goods traffic developes. Whether, however, the Queensland gauge question could be tackled at the same time is more doubtful, but it will have to be done some day, and the sooner the cheaper. Western Australia is perhaps too poor to venture on anything more expensive than the lightest 3 ft. 6 in. lines. H. C. S.

Feb. 19th.

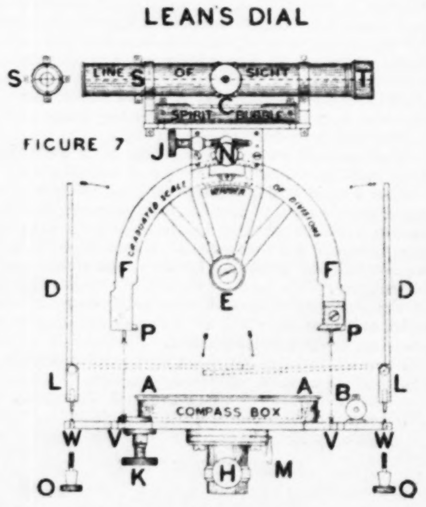
The Student's Column.

FIELD WORK AND INSTRUMENTS.—IX.

Surveying Instruments.

VIII.—THE CIRCUMFERENTOR (*continued*).

THE efficiency of instruments to be used as circumferentors has of late years been improved in many ways. In Lean's miners' dial, illustrated by fig. 7, it will be observed, in the first place, that the gimbal-ring action which was seen to be attached to the compass-box in figs. 1 to 5 of our last article is here omitted, and that the two side arms which carry the folding sight-vanes are permanently fixed parallel to the compass dial. The sight-vanes, D, can be removed and the direction ranged by a telescope, which traverses a vertical arc, marked F, above the compass-box, by which arrangement all vertical angles are measured. The vertical arc consists of a flat metal ring about $\frac{11}{16}$ in. wide, $\frac{3}{16}$ in. thick, with pieces radial to its centre marked E, to which is attached a saddle body-piece carrying the telescope. Upon each face of the arc a scale of divisions is engraved,—one scale shows vertical angles in degrees from zero to 90°, marked from about the centre outwards, the subdivisions being recorded by a vernier upon which an index-arrow registers the angle to be read. The vernier-plate is attached to the traversing body-piece of the telescope. By means of an index arrow marked upon a plate fixed at the back of this vernier-plate, and which points to a scale upon the other face of the arc, the horizontal equivalent of any measurement taken along an inclined plane can be arrived at; the scale giving the difference between the hypothenuse and the base of a right-angled triangle in terms of the number of links to be deducted from one chain's length of 100 links, when measuring up or down a plane inclined to the vertical at the angle indicated by the scale of degrees marked upon the face of the arc first described. The difference arrived at by calculation would amount to 1·54 links in 100 links for an angle of 10°, 6·41 links in 100 for 20°, 15·4 in 100 for 30°, 30·5 in 100 for 40°, and 41·4 in 100 for 45°. The arc upon which the scales are marked gives the nominal size of the instrument. If the circle of divisions has a diameter of 6 in., this instrument would be called a Lean's 6-in. miner's dial. Both the sight-vanes, D, and the vertical arc, F, are each secured as required to the side arms of the compass-box by the set-screws marked Q, the sight-vanes being attached at the holes marked W, and the vertical arc at the holes marked V. The telescope can be clamped to the arc by means of the milled-headed screw marked N, the tangent screw, marked J, being intended for slow motion in final adjustment when the screw, N, is tightened. When the index attached to the sliding vernier stands at zero, the line of sight in the telescope (which joins the centre of the diaphragm, marked S, with the optical centre of the object-glass, T) should be parallel to the dial in the compass-box, and when the telescope is so clamped the compass-box can be set level by means of the long spirit bubble, marked C, which is fixed under the telescope, and the transverse or short bubble, marked B, upon the projecting arm of the compass-box. The needle is set free by withdrawing the lever stop-piece, M, and having set the N or 360° marked upon the compass-dial so as to coincide with the north point of the magnetic needle when at rest, as described in our last article, the compass-box with the arms carrying the sight-vanes, or arc and telescope may be made to turn round the dial by means of the milled head, K, of the pinion working the revolving gear.



In Hedley's dial, which is so well known among mining engineers, by a special arrangement of the plates the vernier is often placed on the outside circumference instead of inside the compass-box. The necessity of reading from above the dial face is thus obviated. The concentric action of the dial plates in this instrument may be tested by setting the needle and vernier to 360°, and then revolving the plates by means of the vernier screw and reading off the four quarters.

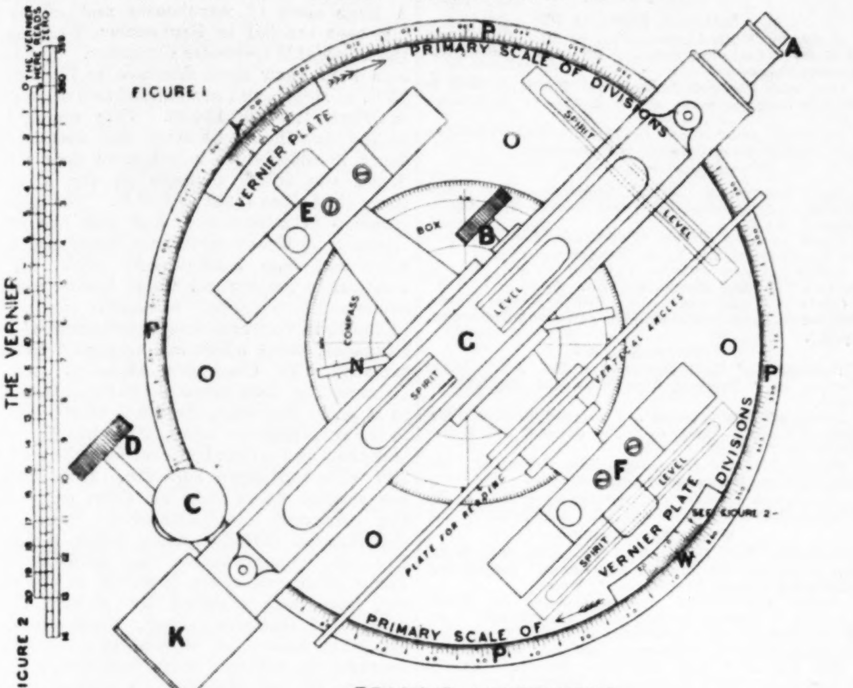
In the more expensive forms of circumferentors to which a telescope is attached we find parallel plates sometimes substituted for the ball-and-socket head. These plates clamp the body of the instrument and are screwed on to the head of a tripod stand, the horizontal position of the compass-box being determined in setting up by means of one or more spirit levels so fixed as not to interfere with the action of the needle. The circumferentor under these circumstances so nearly resembles another instrument, that the further additions, made with a view to its improvement, will be best understood by proceeding to describe the theodilite.

IX.—THE THEODOLITE.

In mining operations all angles are measured from the magnetic meridian, and the attachment of a telescope and outside vernier to a circumferentor is often asserted to render the instrument capable of performing the same operations in surveying, as a theodolite. The superiority of a theodolite will be admitted, when it is remembered that the accuracy of observation in an ordinary dial entirely depends upon the fine performance of the needle, while the theodolite records angles between any two or more given directions independent of the magnetic meridian. Great care must be exercised in taking the bearings with a circumferentor. Any iron plates or rails near the instrument would exert an influence to disturb the needle. The ordinary magnetic needle when mounted so as to be free to move in any direction would come to rest in a position which would be not only so many degrees to the west or east of the astronomical or true north, but its north end would also dip. The mean magnetic dip at Greenwich is at present equal to an angle of about 67°. The needle in a compass-box is, however, so pivoted as to be constrained to move in a horizontal plane only, and by means of a sliding counterpoise, which is attached so as to be adjustable upon the needle itself, the tendency to dip is obviated. The compass-box attached to a circumferentor being usually of a large diameter, it is necessary to ascertain that the long needle which it contains is properly balanced to obviate the effects of dip.

Referring to fig. 1, which illustrates the plan of a theodolite, it will be seen that the eye-piece of the telescope is marked A, and the object-glass end K, that the telescope is balanced upon an axis which is supported upon verticals marked E and F, which are attached to a top-plate carrying one or more verniers. Thus, the telescope can be reversed in its standards, both at the eye and object-glass ends. In fig. 1 two verniers are shown in positions marked W and Y, and the plate marked O, which carries them, slides over another plate marked P, the outer edge of which is bevelled to the figure of the frustrum of a cone, and contains the primary scale of divisions graduated to read continuously round it with the sun, to 360 degrees. The faces of the verniers are continuations of the same conical surfaces, and are graduated to read to the required sub-divisions. The vernier shown in fig. 1 reads to 30 seconds. An arm projecting from the vernier-plate marked O carries the screw

THE THEODOLITE



—TRANSIT INSTRUMENT—

NOTE—ONE DIVISION ON THE PRIMARY SCALE = $\frac{1}{3}$ DEGREE = 20 MINUTES.

ONE DIVISION ON THE VERNIER SCALE = $\frac{39}{40}$ OF ONE DIVISION ON THE PRIMARY SCALE.

NOTE—THE DIFFERENCE BETWEEN ONE DIVISION ON THE PRIMARY SCALE AND ONE DIVISION ON THE VERNIER SCALE IS EQUAL TO HALF A MINUTE

$$\frac{1}{39}-\frac{1}{40}=\frac{1}{39\times40}=\frac{1}{1560}\times\frac{13\times60}{1}=\frac{1}{2}\text{ MINUTE}$$

C for clamping the verniers, after the telescope has been ranged, when viewing an object in a manner about to be described; and the tangent screw D is for moving the vernier-plate a small amount, in order to accurately set it to any required angle, or to set the line of sight in the telescope truly in the correct direction. The object viewed is focussed in the telescope by means of the milled-head marked B, which acts upon a rack and pinion inside the telescope, and moves an inner tube containing the object-glass backwards and forwards in a perfectly straight line within the outer tube, which holds the eye-piece. For convenience of reading the verniers they are placed in any suitable position upon the arc, but not under the line of the telescope. In fig. 1 they are shown in a line at right angles to the telescope. The lower plate, marked P, is made to revolve round the vertical axis of the instrument, and can be clamped in any required position, as will be explained in our next article. The diameter of the circle formed by the graduations of the primary scale of divisions gives the nominal size of the instrument.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

3,290, Drawing-boards, &c. B. K. Webber.

In order that the T-square and drawing-board may be used with greater accuracy and facility, and to protect the same from damage, the inventor makes a groove parallel to the edge of the board, and at right angles to the top and bottom. The head of the T-square is then fitted in the groove, or a fillet is fitted so that the blade of the square is at a perfect angle. By an arrangement of thumb-screws the blade of the T-square may be moved to any desired angle, while the head of the square is kept true to the groove in the board.

3,318, Bending or Shaping Timber. J. A. Dower.

This invention refers to an arrangement for curving timber, and consists of a series of bolts fixed on a platform, to which a flexible bar is bent to curves which are adjusted by means of screws. The timber to be bent is steamed and then laid along the bent bar, and clamped to it until it assumes its shape.

3,549, Dovetailing. S. Warburton.

This invention relates to a combination of saws and cutters fixed in a socket to form a chisel that can be used in an ordinary mortising machine. The saws are taper, and a chisel is fixed between the two saws, so that a feather-edge is cut when this combination tool is used. The wood is placed also at an angle, and the saws used without the chisel, and this produces a groove for the dovetail. A slight modification also insures a "blind"; that, is where the dovetails do not show through.

4,603, Bench Plugs. J. Rawlings.

The subject of this invention consists of two or more iron plugs dropped into holes in the bench made at suitable intervals, whereby the work is held fast while being operated upon. Rubber rings or washers may be used in conjunction with the plugs if required.

7,455, Automatically Latching Doors. J. Kaye.

The principal object of this invention is to temporarily latch one of a pair of folding-doors. The principle on which it works is by employing a latch which is the segment of a circle mounted on a fulcrum, as in locks previously patented by the same manufacturer. A lever affixed is free when the second door is open, but on pressure being applied to the door held by the automatic latch, it will yield, thereby allowing the door to be opened. The automatic latch is also applicable to single doors, and may be used instead of a ball-latch.

12,333, Ventilators, &c. J. Weatherhead.

The object of this invention is to make cowl-heads of the ordinary funnel shape, in fewer parts and with less riveting than by the old methods. Two blocks are used, and these, with a series of springs, are fixed, and on hydraulic pressure being applied the cowl is bent to the required form.

2,707, Mounting Gutters. E. J. Hurley.

For the support of the gutters, wrought-iron brackets are, according to this invention, constructed, so that in addition to the nail or screw support at the top and bottom, they may be further secured from the outer edge of the bracket encircling or supporting the gutter or trough, and by means of a long screw passing through this outer edge of the bracket over the gutter and into the fascia-board.

2,701, Improvements in Chandeliers. W. F. Stanley.

This invention consists in rendering the chandeliers more sightly and compact by hiding the chain and weight arrangement, at the same time offering greater security from accidents and preventing the evaporation of water. A plaited textile band is used in place of the chains and weights, slide in a double tube, which hides the action from sight. The arrangement can also be adapted to electroliers.*

6,360, Burglar Alarm. National Manufacturing Company.

The subject of this patent consists in an arrangement of bells and striking mechanism set in motion by the opening of door or window. An index-hand tells where an entrance is attempted.

6,337, Spirit Levels. W. W. Hulse.

This patent relates to a spirit level with a graduated vertical limb, so that vertical lines and surfaces may be tested without the use of a square, and provision is also made for testing small deviations from vertical and horizontal positions by the marks on the separate limbs.

6,444, Wedges or Keys. W. Strapp.

In place of the wooden keys used in constructive work for sleepers, and the like hollow wedges of steel, iron, or phosphor bronze are, according to this invention, used.

6,474, Hoists and Lifts. John Barrett.

To open and close the doors automatically, rack and pinion gearing is used which is actuated by cords or chains passing over grooved pulleys. The top doors on each floor being connected by a cord or chain to a barrel attached to the respective pulleys which actuate the doors below.

NEW APPLICATIONS FOR PATENTS.

Feb. 4.—1,759, C. Ford, Surface Tiles for Walls, Ceilings, Floors, &c.—1,784, J. Griffin, Saw Sharpening, Setting, and Ranging.—1,789, J. Lockerbie, Locks and Latches.—1,790, J. and E. Podmore, Sash Fasteners.—1,782, G. Harvey, Gutter Brackets.—1,811, W. Thompson, Warming and Ventilating Building.

Feb. 5.—1,836, R. Cozens, Door Handle and Spindle.—1,889, R. Holmes and B. Sugden, Operating Bars for Doors or Hinged Windows for Excluding Cold, Rain, &c.

Feb. 7.—1,899, E. Allwright, Cowl or Wind Guard for Chimneys or Ventilators.—1,908, S. Kristensen and A. Jensen, Casement Fittings.—1,919, P. Cornish, Pavements and Curb Stones.—1,927, R. Scott, Decorating Detachable Wall and Ceiling Surfaces.

Feb. 8.—1,943, H. Peach, Roof Glazing.—1,954, G. Smith, Door Fasteners and Locks.—1,990, G. Redfern, Constructing Harbours, Piers, Breakwaters, &c.—2,000, R. Rew and Others, Heating and Ventilating.

Feb. 9.—2,008, G. Evans, Roof Tiles, Single Lap and Weathertight.—2,015, W. G. Winnett, Corrugated Iron or Metal Roofs.—2,029, P. John, Electric Bells.

Feb. 10.—2,112, J. Harris, Water-closets, and Ventilating Soil-pipes of same.—2,113, Walker and Bell, Raising, Lowering, and Securing Window Sashes.

Feb. 11.—2,148, W. Bruce, Covering of Walls, &c.—2,160, Middleton & Brown, Flushing Water-closets.—2,161, T. Higgins, Dentils for Enriching Wood Mouldings.

Feb. 12.—2,217, W. Eaves, Window-sash Fastener.—2,244, F. Taylor, Door Bolts, Latches, and Locks, and Attaching Knobs and Handles to Spindles.

Feb. 14.—2,281, J. and T. McCallum, Ventilation of Sewers and Drains.—2,290, Young and Moss, Fireplaces.—2,291, Young and Moss, Ventilating Apparatus.—2,300, R. Pyne, Window-sash, Casement, or Door Fastener.—2,305, Doulton and Parker, Ornamenting Pottery, Tiles, or Glass.—2,307, D. Doyen, Closing and Securing Doors.—2,315, H. Lake, Ventilating Apparatus.

Feb. 15.—2,323, J. Hookham, Fittings for Sliding Sashes, &c.—2,328, J. Morley, Flush-out Water-closets, Traps, Fittings, &c.—2,337, Taylor and Davis, Attaching Door and other Knobs to Spindles.—2,363, Arnold and Young, Cement.

Feb. 16.—2,412, H. Hoole, Attachment of Fire-bars to Register and other Grates.—2,428, Sir G. Chubb and Others, Locks and Door Fastenings.

Feb. 17.—2,460, M. Cockburn, Cooking-ranges.—2,482, W. Tuffee, Manufacture of Portland Cement, Bricks, Tiles, &c.—2,508, J. Sutherland, Mortising Machines.—2,513, Little and Hall, Construction of Timber Roofs.

PROVISIONAL SPECIFICATIONS ACCEPTED.

15,904, R. Davison and W. Creed, Wood block flooring.—16,357, R. Warwick, Parquetry Work.—16,840, J. Reid, Rendering Doors, Windows, &c., Draughtproof.—16,922, E. Clarke, Briquettes.—11,116, E. Moore, Curing Damp Walls.—215, H. and A. Cunningham, Wood Screws.—315, G. Hardingham, Iron Cement.—577, P. Justice, Cement.—584, P. Barrett, Counterbalancing Sliding Sashes or Windows.—777, N. Leroy, Portable Wooden Houses.—841, G. Harcourt, Door Check.—1,167, A. Boult, Lighting Gas Burners by Electricity.—1,178, W. Sinclair, Spiral Staircases.—1,191, R. Walker and F. Mills, Securing Wood Flooring Blocks.—1,327, C. Williams, Covering Ironwork with Fireproof Encasements.—16,496, J. Myatt, Drain Chains or Rods.—797, Hussey and Clark, Roofing Tiles and Slates.—1,272, E. Gietaert, Door Locks.—89, H. Owens, Opening and Closing Fanlights, Skylights, Ventilators, &c.—609, Brodie & Prior, Fire Grates.—642, F. Hadlow, Artificial Stone or Cement.—1,414, W. Barnes and Others, Paint Brushes, &c.—1,448, J. Bidder, Chimney Cowl or Ventilator.—1,567, J. Guest, Ladders and Steps.—14,071, W. Elliss, Spring-bolt for Securing Doors and Windows.—16,694, J. Seymour, Window Fastenings.—16,847, F. Colling, Bolts for Doors, &c.—17,019, G. Henley, Building Hollow Walls.—296, Francis & Carey, Combined Latch and Bolt for Doors.—325, A. Boult, Adjusting Saw Blades in Saw-mills.—388, A. Beauvais, jun., Automatic Bolt for Double Doors.—1,188 and 1,190, E. Ellington, Hydraulic Lifts.—1,463, B. Bancroft, Automatically Closing Doors.—1,636, M. Stansfield, Counterbalancing Sliding Windows or Sashes.—1,688, D. Sorfleet, Automatic Draught-Preventer for the Bottom of Doors.—1,730, Gibson & Glazier, Closing the Space Underneath Doors when Shut.—1,733, W.

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* The principle of this invention was more fully described and illustrated in the *Builder* for October 9, 1886, p. 539.

Reynolds, Substitute for Stained Glass.—1,740, J. Gets, Forming Water-tight Joints for Doors or Windows.—1,754, Purdon & Walters, Door Closer.—1,811, W. Thompson, Warming and Ventilating Buildings, &c.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to Opposition for Two Months.

1,816, W. Joy, Charging Cement Kilns.—3,018, R. Beattie, Air-tight Inspection Chamber for Drains.—3,019, G. Buffham, Ventilators.—4,784, T. Walrond, Connecting Drains to Main Drain or Sewer, &c.—4,765, J. Kaye, Locks for Sliding Doors, &c.—4,803, C. Bellamy, Fire Grates.—4,824, B. Verity, Ventilating and Warming Buildings.—4,921, C. Taylor and A. Ross, Coupling Piece for Gas and Water Pipes and Fittings.—6,103, E. Flint and W. Knowles, Hinges.—16,988, W. Thompson, Planing and Dressing Slates.—17,098, W. Sonnet, Portland Cement.—4,235, Stoffert and Dykes, Girders and Timber and Fireproof Floors.—4,887, Giles and Petrie, Decorating Lincrusta Walton, &c. for Walls.—3,547, Brodie & Prior, Fire-grates.—3,790, Brodie & Prior, Shifting-Bottom Fire-grates.—5,187, W. Walker, Ornamenting Glass and applying it to the covering of Walls, Ceilings, &c.—5,237, T. Fawcett, Brick-making Machinery.—5,241, W. Cheal, Attaching Soil-Pipes to the Earthenware Water-closets, Drains, &c.—5,371, J. Macmeikan, Inlet Ventilators.—643, J. Cropper, Window Sashes and Frames.—2,566, P. Bawden, Brick and Tile Making Machinery.—3,369, J. Denny, Embossed and Geometrical Tiles, Mosaics, &c.—5,351, R. Bradshaw, Carrying-off Table for Brick and Tile Machines.—9,778, A. Black, Up-Current Ventilator.—12,277, J. Goodwin, Window Sash-Fastener.—781, H. McDonnell and Others, Ornamental Coverings for Walls, Ceilings, &c.—788, A. Boult, Water-closets.

RECENT SALES OF PROPERTY.

ESTATE EXCHANGE REPORT.

February 14.	
By R. A. Notley.	
St. Pancras—19, Hastings-street, 19 years, ground-rent 5*l*. 5s.	£105
February 15.	
By S. Walker & Runtz.	
Walworth—18 to 24 even, York-street, freehold ...	880
Old Kent-road—81 and 83, Elsted-street, and a plot of land, freehold	680
Carshalton—Freehold ground-rent of 34*l*., reversion in 79 years	660
By Dowsett & Woods.	
Sutton, West-street—A plot of freehold land	415
By St. Quintin & Son.	
Mile End—53, Tredegar-square, 15 years, ground-rent 1s.	265
By C. & H. White.	
Brixton—9, Geneva-road, 79 years, ground-rent 6*l*.	300
Mile End—26 to 32 even, Skidmore-street, freehold	1,010
A Ground-rent of 20*l*. a year, term 57 years	405
1 to 5, Maria-terrace, 57 years, ground-rent 10*l*....	1,405
6 to 10, Maria-terrace, 57 years, ground-rent 10*l*.	1,310
Bermondsey—46, Grange-road, freehold	1,050
15 to 22, Bermondsey-square, and 223 to 228, Grange-road, 8½ years, ground-rent 40*l*.	380
Merton—1 to 5, Red Lion-cottages, and 1 to 6, Spring-cottages, freehold	900
February 16.	
By E. Smith & Co.	
Regent's Park—10, Park-road, 18½ years	210
By Fuller, Horsey, Sons, & Cassell.	
Ealing—The freehold house, Spencer Villa	460
By C. F. Luckhurst.	
Lambeth—1a, 2a, and 3a, Granby-place, 63 years, ground-rent 9*l*.	865
Balham—145, Endlesham-road, freehold	450
By Rushworth & Stevens.	
Twickenham—7, 8, and 9, Heath-road, and 1 to 7, Stuart-place, 20 years, ground-rent 27*l*. 12s. ...	270
By G. Jackson.	
Wood-Green—7, Lander-terrace, 79 years, ground-rent 6*l*.	270
9 to 12, King's-road, 79 years, ground-rent 12*l*. ...	325
13 to 16, King's-road, 79 years, ground-rent 12*l*....	350
February 17.	
By E. Robins & Hine.	
Stratford — Ground-rent of 16*l*. 2s. 6d., term 71 years	330
By Reynolds & Eason.	
Spitalfields—26 to 50 even, and 50a, Grey Eagle-street, 46 years, ground-rent 60*l*.	3,500
1 to 4 and 4a, Eckersley-street, 74 years, ground-rent 20*l*.	1,400
Bethnal-green—11 and 14, Pedley-street, 74 years, ground-rent 10*l*.	575
By Izard & Dawe.	
Spitalfields — 28, Hanbury-street, freehold; 30, Hanbury-street, 26 years; and the goodwill of a Walking-stick Manufacturer's	1,160
February 18.	
By H. Staines.	
Tottenham—Ground-rents of 31*l*. 10s., reversion in 88 years	675
Homerton—102 and 104, Ballance-road, 72 years, ground-rent 6*l*. 6s.	315
By Baker & Son.	
Ealing, Park Estate—Six plots of freehold land......	156
Harrow, Metropolitan Estate—Ten plots of freehold land	367
Finchley, Older's Hill Estate—Four plots of freehold land	323
Teddington, Weir Estate—Two plots of freehold land	106
Three plots of freehold land	153

MEETINGS.

Saturday, February 26.

Architectural Association.—Visit to Sion College and St. George's Cathedral Schools. 2·30 p.m. (See advertisement this week.)

Civil and Mechanical Engineers' Society. — Visit to the new drainage works at the Houses of Parliament. 2 p.m.

Edinburgh Architectural Association.—Visit to Catholic Apostolic Church and College of Physicians.

Monday, February 28.

Royal Institute of British Architects. — Mr. Josiah Conder on "Domestic, Civil, and Palatial Buildings in Japan." 8 p.m.

Royal Academy of Arts (Lectures in Architecture).—Mr. G. Aitchison, A.R.A., on "Doorways." 8 p.m.

Society of Arts (Cantor Lectures). — Mr. W. Y. Dent on "Building Materials." III. 8 p.m.

Clerks of Works' Association.—Fourth Annual Dinner, Professor T. Roger-Smith in the Chair (Holborn Restaurant, 7 p.m.).

Tuesday, March 1.

Institution of Civil Engineers. — Mr. John James Webster on "Dredging Operations and Appliances." 8 p.m.

Society of Arts (Foreign and Colonial Section).—Mr. Edward Cunliffe-Owen on "The Colonial and Indian Exhibition." 8 p.m.

Society of Biblical Archæology.—Miss Gonino on "The Caaba, and the Mosque of Mecca." 8 p.m.

Birmingham Architectural Association. — Mr. J. W. Tonks on "Heraldry in Modern Art." 7·30 p.m.

Wednesday, March 2.

Carpenters' Hall, London Wall (Free Lectures to Building Artisans).—Mr. Banister Fletcher on "English Carpenters and Foreign Competition." 8 p.m.

British Archæological Association. — (1) Dr. Woodhouse on "Inscriptions in Fulham Churchyard." (2) M. Ch. Roessler on "Discoveries at Treport." (3) Rev. Dr. Hooppell on "Excavations at Vinovia." 8 p.m.

Civil and Mechanical Engineers' Society. — Mr. B. Haughton on "Wave Percussion." 7 p.m.

Society of Arts.—8 p.m.

St. Paul's Ecclesiological Society.—Mr. W. Bolton on "Some Little Known Churches near London." 7 p.m.

Builders' Foremen and Clerks of Works' Institution.—8·30 p.m.

Thursday, March 3.

Royal Academy of Arts (Lectures in Architecture).—Mr. G. Aitchison, A.R.A., on "Windows." 8 p.m.

Royal Archæological Institute of Great Britain.—(1) The Rev. Precentor Venables on "The Recent Discovery of the Foundations of St. Hugh's Apse at Lincoln Minster." (2) Mr. H. S. Dale on "Glastonbury Abbey." 4 p.m.

Edinburgh Architectural Association. — Mr. D. MacGibbon on "Architecture in the South of France." 8 p.m.

Friday, March 4.

Architectural Association.—Mr. A. Baker on "Welsh Churches." 7·30 p.m.

Society of Arts (Indian Section). — Major-General Sir F. J. Goldsmid on "Our Trade Routes to the East." 8 p.m.

Institution of Civil Engineers (Students' Meeting).—Mr. Sidney H. Wells on "Propelling-Machinery of Modern War-ships." 7·30 p.m.

Saturday, March 5.

Association of Public Sanitary Inspectors. — Mr. J. A. Davenport, C.E., on "Rural Sanitation." 6·30 p.m.

Architectural Association. — Visit to the Church of Corpus Christi, Brixton-rise, and St. Mary's Church, Clapham. 3 p.m. (See advertisement.)

Miscellanea.

"Charing Cross-road, W.C." — At the meeting of the Metropolitan Board of Works on the 18th inst., on the recommendation of the Works and General Purposes Committee it was resolved that the name "Charing Cross-road, W.C.," be applied to the new thoroughfare just formed by the Board between Charing-cross and Tottenham Court-road. We think the name a very cumbrous and awkward one, and adhere to the opinion expressed by us last week (p. 276, *ante*), that "Nelson-avenue," as proposed by us, would have been both distinctive and appropriate, as commemorating a great personage in English history, whose name is not associated with any important street in London. A correspondent writes suggesting the name "Alexandra-avenue," in compliment to H.R.H. the Princess of Wales. The new street is to be opened this Saturday, the 26th inst., by H.R.H. the Duke of Cambridge.

The Proposed Imperial Institute Competition.—It is announced that the following are the names of the architects who have been selected to prepare competitive plans for the Imperial Institute:—Dr. R. Rowand Anderson (Edinburgh), Mr. Arthur W. Blomfield, Mr. Thomas E. Collcutt, Messrs. T. N. Deane & Son (Dublin), Mr. Thomas G. Jackson, and Messrs. Aston Webb & E. Ingress Bell. The committee of selection consists of Lord Herschell, the Earl of Carnarvon, Sir Frederic Leighton, P.R.A.; Sir Frederick Abel, C.B., D.C.L., F.R.S.; and Mr. Alfred Waterhouse, R.A.

Clerks of Works' Association of Great Britain.—Prof. T. Roger Smith, F.R.I.B.A., will preside at the fourth annual dinner of this Association, which will take place at the Holborn Restaurant on Monday evening next.

New Colonial Warehouses in Wapping. A large block of warehouses and offices has just been erected in High-street, Wapping, by the Colonial Warehouses Company. The buildings have their main frontage to High-street, 95 ft. in length, and are carried to a mean depth in Crown-street of 144 ft. They are 90 ft. in height from the street level, and contain eight floors, in addition to a basement floor 6 ft. in depth, the entire floorage of the structure being thus close upon 11,000 ft. The principal frontage in High-street, and also the return elevation in Crown-street, are faced with stock brick and blue Staffordshire brick, all the windows to the several floors having segment heads and iron sashes. A massive cornice, 6 ft. in depth, in Portland stone, surmounts the two frontages, above which is a very good flat roof, surfaced with Claridge's asphalte. All the floors rest on iron columns, varying from 9 in. to 15 in. in diameter, the whole of the columns to the several floors being 200 in number. The basement and ground floors, like the roof, are laid with Claridge's asphalte. Iron doors to the several floors shut off from each other the different compartments, these, with the internal dividing walls, being a preventive of communication in case of fire. These doors and other ironwork in the building, have been supplied by Messrs. Jewiss & Son, of Gainsford-street, Bermondsey. A lift in the basement, worked by steam-power, connects the different floors from the ground to the top of the building. A bridge, crossing High-street, at the level of the second floor, connects the warehouses with those of the company on the wharf on the margin of the river. In carrying out the works, the sanitary arrangements of the structure have received special attention. These, including the lavatories, closets, and urinals, have been furnished by Messrs. Jennings, of Stangate, Lambeth. The architect is Mr. Horace Alexander, of Cannon-street, E.C., and the contractor is Mr. B. Nightingale, of the Albert Works, Lambeth. Mr. Place is clerk of the works, and Mr. J. W. Read the general foreman. The asphalte portion of the works has been admirably carried out under the superintendence of Mr. West, manager to Claridge's Company. The estimated cost of the buildings is from 20,000*l*. to 25,000*l*.

Building Operatives at Toynbee Hall.—In response to an invitation of the Warden and residents of Toynbee Hall, Whitechapel, about fifty of the workmen employed by Messrs. Lathey Brothers, of Battersea, in building Toynbee Hall and Library, met the residents there on Thursday evening, the 17th inst., where they were warmly welcomed by the Rev. T. G. Gardiner on behalf of the Warden (the Rev. S. A. Barnett), who was unavoidably absent. After an excellent supper, the Chairman spoke thanking the company for their attendance and complimenting them on the satisfactory manner in which the works have been carried out, and concluded by proposing the prosperity of the firm of Lathey Brothers. This was responded to by Mr. Edwin Lathey. The party then adjourned to the drawing-room, where a most enjoyable evening was spent, readings, recitations, and singing forming part of the programme. A hearty vote of thanks, proposed by Mr. E. H. Middleton and seconded by Mr. Lathey, was carried unanimously.

The Laws of God in Relation to Health.—This was the subject of an interesting and suggestive address by Professor Attfield, delivered last week by him as President of the Hertfordshire Natural History Society. The address dealt with "the food we eat," "the fluids we drink," and "the clothing we wear," in a manner which might be expected from a professor of chemistry and analyst, and it included much good counsel. We are not a little doubtful, however, of the wisdom of all that the lecturer said anent the carriers of effete matters. If considerations of space permit we may return to the subject next week.

"Wrought Iron."—This was the title of a paper read by Mr. J. Starkie Gardner, F.G.S., before the Applied Art Section of the Society of Arts on Tuesday evening. We will return to the subject next week.

Lifts.—The new branch of the Bank of England, adjoining the Royal Courts of Justice, will be fitted with three hydraulic lifts, to be constructed by Messrs. Clark, Bunnett, & Co.

British Archæological Association.—At the meeting of this Association on Wednesday, the 16th inst., Mr. C. H. Compton in the chair, the progress of the arrangements for holding the Congress at Liverpool was reported. Mr. Roach Smith, F.S.A., referred to various Roman interments found in Kent in relation to the leaden sarcophagus which has recently been found at Plumstead. The sarcophagus was formed of cast plates, the lid being bent over the sides, and a cross saltire was scratched upon it. The interment was that of a young female. No articles whatever were found. It is more than probable that the site is that of a Roman cemetery, since urns with bones have since been found. The Rev. Mr. Lewis read a description of some curious fourteenth-century glass in the Church of St. Edmund, Kingsdown, Kent,—a building which is found to possess a Saxon tower, while the cores of the walls of the church most probably also belong to the same early period. Mr. Earle Way produced several fictile fragments found in Southwark, and Mr. Loftus Brock, F.S.A., some examples of Castor ware found in the Eastern Counties. The Rev. S. Surtees described the little-known Frith Stool, in Sprotborough Church, Yorkshire, and referred to the boundary crosses in the locality which marked the extent of the ancient sanctuary. The bases of several of these he had discovered. They appear to be of Saxon date, the same early period being claimed for the Stool, which is of stone, carved with figures. A paper was then read on the Communion-plate in Peterborough Cathedral, by Mr. J. T. Irvine. The great bulk of the articles are of comparatively modern date. A second paper was then read, prepared by the Rev. L. H. Loyd, on some parochial records preserved at Wing Church, Bucks, transcripts of which were read by Mr. W. De Gray Birch, F.S.A., in the absence of the author.

Sale of Suburban Building Land.—Last week Messrs. Baker & Sons submitted for sale, at the Auction Mart, several plots of building land in Chelsea, Ealing, Harrow, Finchley, and Teddington. For the plots in Chelsea, on the "New King's-road Estate" of the National Standard Land Company, there was only a limited demand, but those at Ealing, on the "Ealing Park Estate"; at Harrow, on the "Metropolitan Estate"; at Finchley, on the "Older's Hill Estate"; and at Teddington, on the "Teddington Weir Estate," were all sold. The Ealing plots, each containing frontages of 16 ft. and a depth of 110 ft., were sold for 26*l*. each. Those at Harrow, containing 18 ft. frontage and a depth of 140 ft., realised from 34*l*. to 42*l*. each; the Finchley plots, 35 ft. frontage and 140 ft. in depth, were sold for 91*l*. and 92*l*. each; and the Teddington plots, 25 ft. frontage and 140 ft. in depth, realised from 51*l*. to 53*l*. each. The total proceeds of the sale amounted to about 1,800*l*.

The New Offices of the "Yorkshire Post," Leeds.—Mr. J. C. Edwards, of Ruabon, writes to say with regard to this building, illustrated and described by us last week, that the "red Ruabon bricks" and the terra-cotta were manufactured at his works.

PRICES CURRENT OF MATERIALS.

TIMBER.	£.	s.	d.	£.	s.	d.
Greenheart, B.G. ....ton	6	10	0	7	10	0
Teak, E.I. ....load	9	0	0	14	0	0
Sequoia, U.S. ....foot cube	0	2	3	0	3	0
Ash, Canada ....load	3	0	0	4	10	0
Birch ,, ...	2	5	0	3	10	0
Elm ,, ...	3	10	0	4	10	0
Fir, Dantsic, &c.	1	10	0	4	0	0
Oak ,, ...	2	10	0	4	10	0
Canada	3	0	0	6	0	0
Pine, Canada red	2	0	0	3	10	0
,, yellow	2	5	0	4	0	0
Lath, Dantsic ....fathom	3	0	0	5	0	0
St. Petersburg	4	0	0	5	10	0
Wainscot, Riga ....log	2	15	0	4	0	0
,, Odessa, crown................	3	5	0	3	7	6
Deals, Finland, 2nd and 1st...std.100	7	0	0	8	0	0
,, 4th and 3rd	5	10	0	6	10	0
Riga	5	10	0	7	0	0
St. Petersburg, 1st yellow	8	10	0	14	0	0
,, 2nd ,, ...	7	0	0	8	0	0
,, white	6	0	0	9	0	0
Swedish	6	0	0	15	0	0
White Sea	7	0	0	16	10	0
Canada, Pine, 1st	17	0	0	27	0	0
,, ,, 2nd......................	11	0	0	16	0	0
,, ,, 3rd, &c..................	6	0	0	8	0	0
,, Spruce, 1st	8	0	0	10	0	0
,, ,, 3rd and 2nd	5	0	0	7	0	0
New Brunswick, &c.	5	0	0	7	0	0
Battens, all kinds	4	0	0	12	0	0
Flooring Boards, sq. 1 in., prepared, First	0	8	0	0	11	6
Second	0	6	6	0	7	6
Other qualities	0	5	0	0	6	0

TIMBER (*continued*).	£.	s.	d.	£.	s.	d.
Cedar, Cuba ....foot	0	0	3	0	0	3¼
Honduras, &c.	0	0	2¼	0	0	3½
Australian	0	0	2	0	0	3
Mahogany, Cuba	0	0	4	0	0	6
St. Domingo, cargo average	0	0	4	0	0	6
Mahogany, Mexican, cargo av.	0	0	3½	0	0	4¼
Tobasco ,, ...	0	0	4	0	0	6
Honduras ,, ...	0	0	4	0	0	6
Maple, Bird's-eye	0	0	6	0	0	8
Rose, Rio ....ton	7	0	0	10	0	0
Bahia..	6	0	0	10	0	0
Box, Turkey ....ton	5	0	0	15	0	0
Satin, St. Domingo ....foot	0	0	6	0	0	10
Porto Rico	0	0	6	0	0	10
Walnut, Italian	0	0	4	0	0	5

METALS.	£.	s.	d.	£.	s.	d.
Iron—Bar, Welsh, in London...ton	4	7	6	4	15	0
,, ,, in Wales	4	2	6	4	7	6
,, Staffordshire, London	5	10	0	6	0	0
Sheets, single, in London	6	15	0	8	10	0
Hoops ,, ...	6	0	0	7	0	0
Nail-rods ,, ...	5	15	0	6	10	0
Copper—						
British, cake and ingot ....ton	42	10	0	43	10	0
Best selected	43	10	0	44	10	0
Sheets, strong..............................	50	0	0	51	0	0
Chili, bars	39	2	6	39	12	6

METALS (*continued*).	£.	s.	d.	£.	s.	d.
Yellow Metal ....lb.	0	0	4 1/16	0	0	4¼
Lead—						
Pig, Spanish ....ton	12	13	9	0	0	0
English, common brands............	12	17	6	0	0	0
Sheet, English	13	16	3	14	0	0
Spelter—						
Silesian, special ....ton	14	7	6	14	10	0
Ordinary brands.........................	14	5	0	14	7	6
Tin—						
Straits.....................................ton	101	5	0	101	15	0
Australian	101	7	6	102	0	0
English ingots	105	0	0	0	0	0

OILS.	£.	s.	d.	£.	s.	d.
Linseed ....ton	20	10	0	20	12	6
Cocoanut, Cochin	35	10	0	37	0	0
Ceylon	26	0	0	26	5	0
Palm, Lagos	22	10	0	0	0	0
Rapeseed, English pale	23	5	0	0	0	0
,, brown	21	15	0	0	0	0
Cottonseed, refined	18	10	0	20	5	0
Tallow and Oleine	25	0	0	45	0	0
Lubricating, U.S.	5	0	0	6	10	0
,, refined	5	0	0	12	0	0
Turpentine—						
American, in casks ....cwt.	1	8	0	0	0	0
Tar—						
Stockholm ....barrel	0	15	0	0	15	6
Archangel	0	12	6	0	0	0

COMPETITIONS, CONTRACTS, & PUBLIC APPOINTMENTS.

Epitome of Advertisements in this Number.

COMPETITIONS.

Nature of Work.	By whom required.	Premium.	Designs to be delivered.	Page.
New School Premises	Bristol School Board ...	Not stated	Not stated...	ii.
Cottage Hospital, Ashburton..............	The Committee............	do.	do.	ii.

CONTRACTS.

Nature of Work, or Materials.	By whom required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Sewering, Levelling, Paving, &c., Works	Hendon Local Board...	S. S. Grimley	Feb. 28th	ii.
Materials and Works	Surbiton Imp. Com. ...	*Official*	do.	xii.
Main Drainage Works............................	Finchley Local Board	G. W. Brumell............	do.	ii.
Making-up Road	Wandsworth Bd. of Wks	*Official*	March 1st	xii.
Works and Materials	Hammersmith Vestry...	do.	March 2nd	xii.
Stoneware Pipe Sewers, &c.	Lincoln U. R. S. A.......	F. H. Goddard	March 7th	xii.
Sewerage Works and Annual Contracts	Hornsey Local Board...	T. De Courcy Meade ...	do.	xii.
Annual Contracts	St. Giles's Brd. of Wks.	G. Wallace	do.	ii.
Reservoir, &c.	Clitheroe Cor.	McLandsborough & Preston............	March 8th	ii.
New Sewers..	Com. of Sewers..........	*Official*	do.	ii.
Cast-Iron Pipes, Castings, and laying of same	Southampton Cor.	W. Matthews	do.	xii.
Erection of Cottages, Monmouthshire	Great Western Ry. Co.	*Official*	do.	xii.
Stone Paving	Com. of Sewers............	do.	do.	ii.
Asphalte and Tar Paving........................	St. Mary, Islington, Vestry	do.	do.	xii.
Water Van and Carts	do.	do.	do.	xii.
Works and Materials	Rotherhithe Vestry......	do.	do.	ii.
Alterations and Enlargement of Workhouse...	Prestwich Union.........	Worthington & Elgood	March 10th	xii.
Supply of Stone, Gravel, &c.....................	Hendon Local Board ...	S. S. Grimley	March 14th	ii.
Paving Works..	Met. Board of Works...	*Official*	March 18th	ii.
Painting Rochester Bridge........................	Wardens, &c.	do.	March 31st	xii.
Vulcanised Rubber Squeegees	Schl. Board for London	do.	Not stated...	ii.
Enlargement of Board School	do.	do.	do.	ii.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.	Page.
Surveyor and Engineer..............................	Walthamstow Local Bd	300*l*.	March 4th	xvi.
Nuisance Inspector	Borough of Stockton ...	Not stated	March 7th	xvi.
Assistant Inspector of Nuisances..................	Wandsworth Bd. of Wks	2*l*. 2s. per week, &c.	do.	xvi.
Assistant in Borough Surveyor's Office	Stockton Corporation...	110*l*.	do.	xvi.

TENDERS.

ABERYSTWITH.—For the restoration of the University College of Wales. Messrs. J. P. Seddon and J. C. Carter, architects:—

E. Davies & Son, Newtown, Mont....	£25,405	0	0
A. Bleakley & Son, Birkenhead	20,500	0	0
S. & W. Pattinson, Sleaford	20,500	0	0
W. Thornton & Sons, Liverpool.....	20,100	0	0
G. Griffiths, Criccieth, Carn.	19,952	0	0
C. G. Hill, Coventry	19,950	0	0
Treasure & Son, Shrewsbury	19,600	0	0
Dove Bros., Islington	19,255	0	0
P. Horsman & Co., Wolverhampton	18,945	0	0
J. Parnell & Son, Rugby	18,878	0	0
C. Burton, Cardiff	18,347	0	0
S. Belham & Co., Buckingham Palace-road (accepted)...............	17,900	0	0

BRISTOL.—For enlargement of stable, coachhouse, &c., for Mr. John Curtis, 3, Cotham-park. Mr. Herbert J. Jones, architect:—

W. Church	£164	0	0
G. Humphreys....................................	147	0	0
H. Johnson	145	0	0
B. Vowles	139	0	0
T. R. Lewis	130	0	0
J. Perrott	114	0	0

BRISTOL.—For alterations at No. 34, Thomas-street, for Mr. Jacob Dove. Mr. Herbert J. Jones, architect:—

E. Gay	£340	0	0
G. Humphreys	317	15	0
Eastabrook & Sons	311	0	0
C. A. Hayes	307	17	0
J. Perrott	303	0	0
T. R. Lewis	300	0	0
E. T. Hatherley	297	0	0
P. H. Turner......................................	269	10	0

BRISTOL.—For alterations at Nos. 1 and 2, Bridewell-street, for Messrs. Chard Bros. Mr. Herbert J. Jones, architect:—

First Contract.

S. Turner	£233	0	0
W. Church...	215	0	0
Cowlin & Son.....................................	209	0	0
J. Perrott	208	0	0
R. J. Serle...	205	0	0
J. E. Davis	197	0	0
Eastabrook & Sons	194	0	0
G. Humphreys....................................	194	0	0
T. R. Lewis	189	0	0

Second Contract.—Additions.

T. R. Lewis	200	0	0

BRISTOL.—For extension of machine room, &c., Caxton Works, for Messrs. Mardon, Son, & Hall. Mr. Herbert J. Jones, architect:—

Stacey & Son.....................................	£3'7	3	0
J. Wilkins & Son...............................	589	0	0
W. Harris	578	0	0
H. A. Horse	552	15	11
J. Bastow	549	0	0
A. J. Bearan	513	0	0
W. Church...	502	14	3
G. Humphreys	498	0	0
R. Wilkins & Son..............................	488	0	0
J. Perrott	480	0	0
T. R. Lewis	479	14	1
G. T. Hatherley	467	0	0
Cowlin & Son.....................................	458	0	0
Eastabrook & Son	440	0	0

BROMLEY.—For additions to the Greyhound, Bromley, for Messrs. H. & V. Nicholl. Mr. Albert L. Guy, architect, Lewisham:—

D. Payne (accepted)	£245	0

CLIFTON.—For additional story, &c., to 24, Regent-street, for Capt. A. F. Adams. Mr. Herbert J. Jones, architect :—

Cowlin & Son	£725	0	0
J. Bastow	611	0	0
G. Humphreys	597	0	0
Eastabrook & Sons	562	0	0
W. Church	528	0	0
T. R. Lewis	497	0	0
J. Perrott	485	0	0

GREENWICH.—For alterations and additions to the Crown, East Greenwich, for Messrs. H. & V. Nicholl. Mr. Albert L. Guy, architect, Lewisham :—

H. L. Holloway	£417	0	0
T. Knight (accepted)	398	0	0
G. W. Slag (withdrawn)	345	0	0

HAMPSTEAD.—For artisans' dwellings, Hampstead. Mr. Henry S. Legg, Christ's Hospital, architect :—

	For the Building.	Red Brick Facings Extra.	Glazed Brick Staircases Extra.	Club-Room.
Burford & Son	£12,326	£185	£420	£604
Dove Bros.	11,925	185	600	545
G. S. S. Williams & Son	11,150	148	590	515
Perry & Co	10,989	111	489	484
Hall, Beddall, & Co.	10,973	142	465	524
Patman & Fotheringham	10,853	120	420	499
Harris & Wardrop	10,694	74	400	495
Allen & Son	10,688	222	335	481
Gould & Brand	10,575	97	530	520
Brass & Son	10,552	123	424	489
S. J. Jerrard	10,489	81	515	494
Howell & Son	10,375	111	615	476
Wall Bros.	10,297	129	395	469

LEWISHAM.—For bar fittings at the White Hart, Lewisham, for Mr. A. Winbush. Mr. Albert L. Guy, architect, Lewisham :—

W. Bennett	£275	0	0
J. Davidson	258	10	0
J. W. Taylor	248	0	0
F. Sage & Co.	235	0	0
H. L. Holloway (accepted)	227	0	0
W. Helling	189	0	0

Pewterers' Work.

J. Davidson	68	10	0
W. Helling	60	0	0
B. R. Banks	53	0	0
J. McPherson, jun.	51	15	0
Sanders & Son	51	13	0
F. Matthews	46	1	8
R. E. Lane* (amended)	40	0	0

* Accepted.

LEWISHAM.—For new laundry, bath-house, Lewisham, for Miss Mold. Mr. Albert L. Guy, architect :—

H. L. Holloway (accepted)	£140	0	0

LONDON.—For the erection of a factory in Euston-road, for Messrs. Callard & Bowser. Quantities by Messrs. Goodchild & Son. Mr. George Waymouth, architect :—

Philp & Bissiker	£2,639	0	0
T. Taylor	2,599	0	0
Ashby Bros.	2,512	0	0
Davis Bros	2,475	0	0
Outhwaite & Son	2,440	0	0
Richardson Bros.	2,390	0	0
Allen & Son	2,385	0	0
F. & F. H. Higgs	2,214	0	0

LONDON.—For rebuilding Messrs. Hyman's warehouse, in Britannia-street, Gray's Inn-road. Messrs. Isaacs & Florence, architects. Quantities supplied by Mr. L. C. Riddett :—

Yardley & Son	£3,147	0	0
Kirk & Randall	2,840	0	0
Mills	2,600	0	0
Coulsell Bros.	2,579	0	0
Rhodes	2,540	0	0
Nightingale	2,520	0	0
Lawrance & Sons	2,469	0	0
Patman & Fotheringham	2,443	0	0
J. O. Richardson	2,427	0	0

LONDON.—For new building, in Cannon Street-road, Mile-end. Mr. Lewis Solomon, architect :—

Downs	£1,060	0	0
Palmer	949	0	0
Roberts	937	0	0
Elkington (accepted)	795	0	0

LONDON.—For new building, in Duke-street, Aldgate. Mr. Lewis Solomon, architect. No quantities supplied :—

Patman & Fotheringham	£1,843	0	0
Colley	1,775	0	0
Roberts	1,579	0	0
Downs (accepted)	1,566	0	0

LONDON.—For alterations, sanitary improvements and painting, &c., to house and stables, 107, Harley-street. Messrs. Eales & Son, architects and surveyors :—

G. Shaw	£476	10	0
F. Marks	441	0	0
Clarke & Mannooch (accepted)	422	9	0

LONDON.—For rebuilding part, altering, and decorating No. 13, Great Castle-street, W. Mr. W. Miller, architect :—

R. Perkins	£698	0	0
Watson Bros.	663	0	0
Clarke & Mannooch (accepted)	597	0	0

LONDON.—For pulling down and rebuilding four houses, New Nicholl-street, Bethnal Green-road, for Mr. T. S. Lock. Messrs. J. A. & W. Sharpe, architects and surveyors :—

Killy & Gayford	£1,620	0	0
Steele Bros.	1,495	0	0
Higgs	1,397	0	0
Taylor	1,369	0	0
Coulson Bros	1,360	0	0
Pritchard & Son	1,357	0	0
Wire	1,350	0	0
Rayne	1,347	0	0
Jackson & Todd	1,329	0	0
Boulter & Lee	1,250	0	0
Mower	1,161	0	0

LONDON.—For repairs to warehouse, at New Nicoll-street, Bethnal Green-road, for Mr. T. S. Locks. Messrs. J. A. & W. Sharpe, architects :—

Steele Bros.	£524	0	0
Killy & Gayford	446	0	0
Taylor	297	0	0
Mower	293	0	0
Jackson & Todd	279	0	0
Pritchard & Son	262	0	0
Rayne	253	0	0
Higgs	225	0	0
Coulson Bros.	210	0	0
Boulter & Lee	209	10	0
Wire	175	0	0

LONDON.—For oak panelling at the Church of St. Mary Aldermary. Mr. Charles Innes, architect :—

Colls & Son	£538	0	0
A. Robinson	395	0	0
J. M. Macey & Sons	374	0	0
Prestige & Co.	365	0	0

LONDON.—For the erection of front building for the United Radical Club, Kay-street, Hackney-road. Mr. C. R. Winter, architect :—

Bartram	£1,650	0	0
Row & Silvester	1,495	0	0
Steel Bros.	1,375	0	0
Taylor	1,199	0	0
C. Dearing & Son	1,045	0	0

LONDON.—For repairs to 151, Curtain-road, Shoreditch, for Messrs. W. Wallace & Co. :—

Langler & Pinkham	£117	10	0
W. Groom, Dulwich (accepted)	114	0	0

STROOD (Kent).—For new Wesleyan Jubilee Chapel, at Strood, Kent. Mr. J. W. Nash, architect, Rochester. Quantities by the architect :—

	Chapel.	Boundary Walls.
Vaughan, Maidstone	£4,190	£140
Naylor & Rochester	3,978	140
Callund & Son, Rochester	3,963	140
C. E. Skinner, Chatham*	3,670	140

* Accepted.

SURBITON (Surrey).—For the completion of a residence, Southborough Park, Surbiton, for Mr. W. E. Lloyd Jones. Mr. George Frederick Haines, architect, Wimbledon :—

Adkins Bros., Surbiton	£658	0	0
R. Scase & Son, Surbiton	595	0	0
F. Alderton, Surbiton	510	0	0
D. Judd, Kingston (accepted)	485	0	0

SMETHWICK.—For the erection of new schools, Cape-hill, Smethwick, for the Harborne School Board. Mr. George H. Cox, architect, 26, Temple-street, Birmingham :—

Inwood, Malvern	£7,290	0	0
Bates, Birmingham	6,953	0	0
Bissett & Sons, Sheffield	6,950	0	0
Bradney & Co., Wolverhampton	6,820	0	0
Hughes, Handsworth	6,789	0	0
Greenwood, Mansfield	6,700	0	0
W. & J. Webb, Birmingham	6,690	0	0
Dorse & Son, Cradley	6,678	0	0
Rotheroe, Birmingham	6,676	0	0
T. Guest, Stourbridge	6,640	0	0
T. Loud, Selly Oak	6,500	0	0
W. Robinson, Birmingham	6,473	0	0
G. F. Smith, Milverton	6,273	0	0
Walton Bros., Smethwick	6,240	0	0
Marshall, Smethwick	6,165	0	0
Gill, Birmingham	6,050	0	0
Horsley Bros., Birmingham	5,997	0	0
T. Rowbotham, Birmingham	5,893	0	0
Barker & Sons, Handsworth	5,885	0	0
Jones & Son, Sedgley	5,795	0	0
Harley & Son, Smethwick (accepted)	5,790	0	0

SWANSEA.—For the erection of two shops, High-street, Swansea. Mr. J. Buckley Wilson, architect, Swansea. Quantities by Mr. W. H. Sandry, Swansea :—

H. Billings, Swansea	£1,078	10	0
H. Hilton & Sons, Swansea	890	10	0
T. Watkins & Jenkins, Swansea	888	0	0
J. Gwyn, Sketty (accepted)	776	7	0
Loveday & Evans, Swansea	695	0	0

SWANSEA.—For alterations to the Swansea Bank, High-street, Swansea. Mr. J. Buckley Wilson, architect :—

T. Watkins & Jenkins, Swansea	£320	0	0
J. Davies, Swansea	305	0	0
J. Gwyn, Sketty	303	0	0
H. Billings, Swansea (accepted)	300	0	0
Brown & Morgans, Swansea	261	10	0
Loveday & Evans, Swansea	127	10	0

SWANSEA.—For shop-front, Goat-street, Swansea. Mr. J. Buckley Wilson, architect :—

H. Billings	£125	0	0
J. Goodrige	114	5	0
J. Davies	107	12	0
C. Walters	105	15	0
J. Gwyn	97	3	0
T. Richards	88	7	0
Loveday & Evans (accepted)	80	0	0

[All of Swansea.]

TAUNTON (Somerset).—For alterations and additions to Mr. R. Woodman's house, Cheddon-road, Taunton. Mr. W. H. Crease, architect :—

Verrier & Son	£348	10	0
C. Fox	231	0	0
G. Handford	213	0	0
A. J. Spiller (accepted)	210	0	0

TUNBRIDGE WELLS.—For new hall, oak staircase, and sundry alterations at Heathfield. Mr. J. Nixon Horsfield, architect, Ditton-hill, Surbiton :—

Holloway Bros.	£1,200	0	0
J. Chapman	1,197	0	0
W. Oakley	1,156	0	0
F. & H. Higgs	1,140	0	0
Turtle & Appleton (accepted)	975	0	0
D. Judd	950	0	0

YARMOUTH.—For a new hospital at Great Yarmouth. Messrs. Bottle & Olley, architects, Great Yarmouth :—

J. G. Leggett	£10,625	0	0
G. H. Springall	9,320	14	0
E. Howes	8,888	0	0
Cork & Beech	8,863	0	0
J. Bray	8,697	0	0
R. Davy	8,413	0	0
J. S. Cooper	8,354	10	0
Rand & Cooper	8,100	0	0
J. Leggett (accepted)	8,066	0	0

[All of Yarmouth.]

[Architects' estimate, 8,300*l.*]

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